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ABSTRACT

This preschool curriculum guide for energy education provides concepts and activities designed to develop an awareness of energy, an interest in understanding energy and a sense of ability and responsibility to use energy wisely. The guide provides language, science, math, social studies, art, physical education and music experiences appropriate for small or large groups of children. An ageless non-sexist MIZER sun-symbol (a puppet or bulletin board figure) is essential to the program as a means of personifying abstract concepts and integrating diverse activities. The guide has five major sections organized around the ideas of understanding basic energy transfer, using energy wisely and sources of energy. Letters from MIZER are included in the fifth section as a means of extending the school-based program to activities and games for the family at home. Field testing suggests that progress through the curriculum should be slow in order to give the children and their families time to acquire and respond to the energy education ideas and activities. Simple activities and basic materials proved better than more elaborate implementations for instructing young children. A Household Energy Management Checklist and a family survey letter are included in the guide. (Author/RH)

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HOME ECONOMICS
COOPERATIVE EXTENSION

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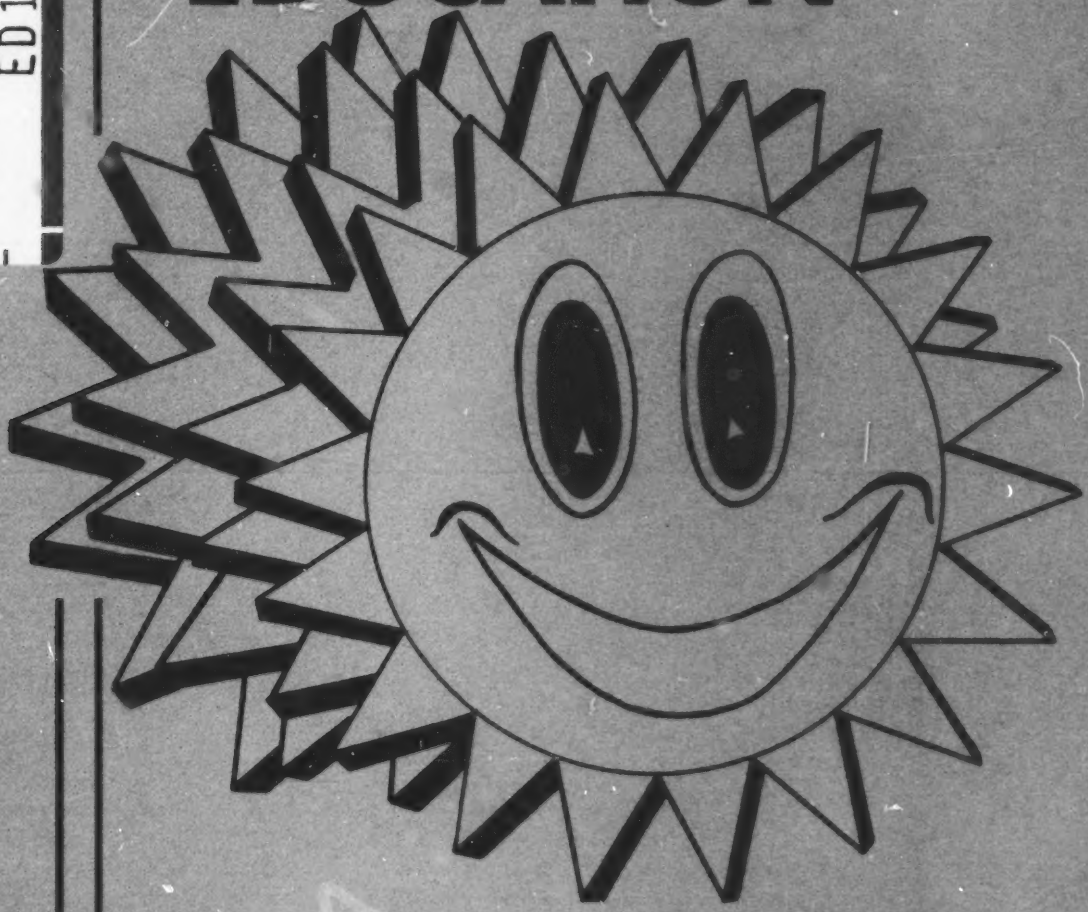

THE MIZER SERIES

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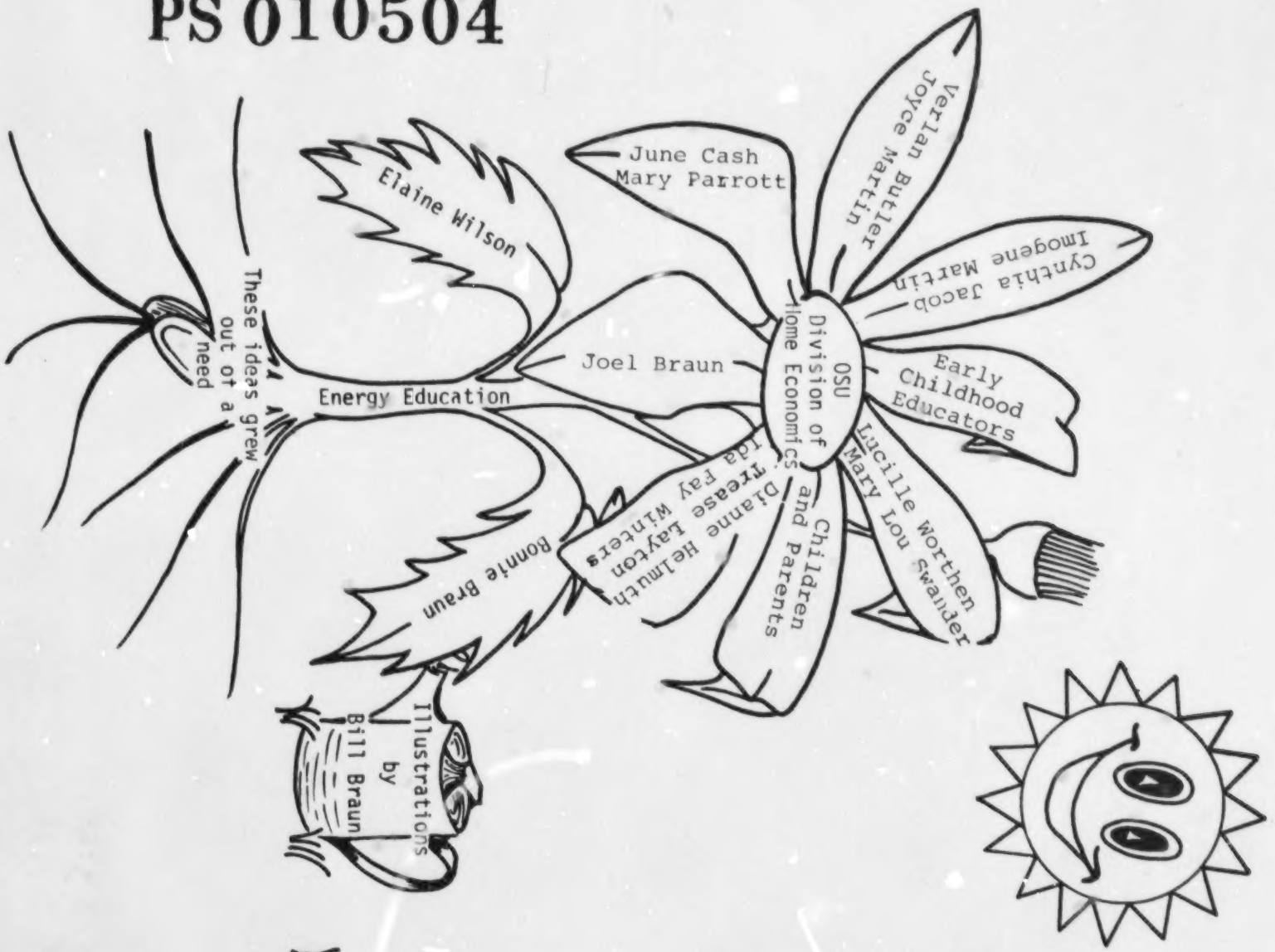
These ideas grew out of a need
Energy Education
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Bill Braun

Dear Friend,

The MIZER SERIES grew out of the need for energy education for young children ages three to six. It represents the combined efforts of many professionals, parents and children from several organizations. When we first considered energy education for young children the task seemed impossible, or at least very difficult. Fortunately, we found that basic concepts related to energy are readily grasped by young children. The learning experiences can be easily provided in the home and/or classroom.

The basic assumptions upon which we developed this program are included here in hopes that other educators can accept these beliefs as they modify the MIZER SERIES for their own use.

A. Energy is an appropriate topic for young children.
   1. Children are aware of the energy crisis as a current event.
   2. Wise energy use will be a future responsibility for today's children.
   3. Basic attitudes, habits, and concepts of energy usage develop during early childhood.
   4. Through energy education, children gain thinking and problem solving skills.

B. Energy education should be a cooperative effort of home and school.
   1. Attitudes learned at school should be consistent with family values so that the child's self concept is enhanced and a conflict is avoided.
   2. Wise use of energy requires cooperation. This is first learned at home and then applied to school and community settings.
   3. Home-based programs extend the learning process to all family members.

Our ultimate goal was to help children and their families improve their quality of life through wise management of energy.

The MIZER SERIES has two parts: the school-based early childhood curriculum and the home-based family activities. Our experience has shown that either part can be used alone with success, but the program is most effective when both parts are used simultaneously. The two parts can be coordinated locally by teachers of early childhood programs and the Home Economics Cooperative Extension office in each county.

We will provide assistance in implementing the program and would appreciate hearing how the MIZER SERIES was received. Please write us at Oklahoma State University.

Your friends,

Bonnie

Elaine

By Katherine Oshel
Age 4

School-Based Early Childhood Curriculum

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THE SCHOOL-BASED EARLY CHILDHOOD CURRICULUM

WHO?

The learning experiences described in this curriculum guide are appropriate for children in the preoperational stage, or approximately three to six years of age. This portion of the MIZER SERIES was field tested in nursery schools, day care centers and public school kindergartens. The curriculum was coordinated with the home-based program. Children received bi-weekly letters from MIZER that they took home. The families used the activities and games at home. The children returned to school with MIZER puppets made at home and discussed the energy activities they had done with their families. Parents reported that older siblings, up to age ten, especially enjoyed the activities and helped teach the younger children.

WHAT?

Children quickly memorize statements made by adults and other children. It is tempting to rush through this curriculum and take pride in what the children say about energy. The children, indeed all of us, will be spending the rest of our lives learning about the wise use of energy. The basic idea of this series is that energy education is a lifelong process and this early childhood curriculum should help children develop basic understandings, attitudes, and skills. Scientific skills of observation, experimentation, problem solving and prediction should be allowed to develop thoroughly. Through this energy curriculum, the children will develop:

(1) An awareness of energy,
(2) An interest in understanding energy,
(3) A sense of ability and responsibility to use energy wisely.

With these goals in mind, teachers should encourage the children to answer their own questions about energy. Even if these answers are at first incorrect, the children will gain insight and confidence that will lead them to correct answers.

WHEN?

The energy education curriculum includes a variety of learning experiences related to energy use. These activites are appropriate for small or large groups of young children, in each interest center of the classroom and in each curriculum area. There are language, science, math, social studies, art, physical education, and music experiences that can be done indoors or outdoors in dramatic play centers, block centers, or outdoors. If a variety of activities are provided the teacher can match energy education to the interests and learning styles of individual children.

WHERE?

The MIZER figure is essential to this program. At school, MIZER, as a puppet or bulletin board figure was quickly associated with energy. The children responded well to MIZER, quickly focusing their attention on that character and the energy topic. For non-readers, the MIZER figure on the letters from MIZER helped the children associate the home experiences with energy education at school. Parents appreciated the MIZER letters that provided a link to the school program and helped them understand their children's comments about what they were learning about energy.

HOW?

Field testing taught us that it is best to move rather slowly through the curriculum and allow the children and their families to absorb and respond to the ideas. We also learned that it was best to stick with simple activites and basic materials. Some fancy learning experiences, experiments and equipment available for energy education were tempting and we tried them, but they just did not work well for young children. We recommend that teachers use their own energy wisely by keeping the learning level basic, the activities simple, and proceeding at a moderate pace.

WHY?

Our results showed that the MIZER SERIES is a practical way to help children gain basic learnings in all curriculum areas through the energy theme which is of interest to all family members.

By Carl Burch
Age 4

Introducing the MIZER SERIES

INTRODUCING THE MIZER SERIES

Because young children are egocentric and energetic, the energy theme can be readily introduced through body movement activities. These activities help to focus and develop the children's interest in energy and movement. As the children play various movement games, they realize that "When we move we use energy." As the unit progresses, the children notice that they can control their use of their own body energy by moving faster, slower, or resting. MIZER can be used to introduce and direct the games and energy related discussions.

MIZER is in the shape of the sun because sunlight is directly or indirectly the source of energy. MIZER's smile and facial expression are styled to reflect friendliness and to relate to the children. Some characterizations of the sun have a rather mystical appearance. The more personable MIZER was developed to help the children gain confidence in their ability to understand and control energy usage. It is important for the teacher to develop MIZER as a friendly assistant to the child's discovery of energy, not an authority that gives out energy information and rules.

The MIZER family

Because wise energy usage requires the involvement of everyone; young and old, male and female, MIZER should be ageless and non-sexist. For this reason, MIZER's signature is always printed. Children have drawn MIZER riding a tricycle, a bicycle, or driving a car. Children have also drawn MIZER families with mother, father and children looking like MIZER. Adults should use MIZER's name rather than he or she to keep the focus on MIZER's character, rather than MIZER's gender.

Field testing showed that the children were easily interested in energy. They were familiar with the term energy from the media. However, they were only aware of the term, not the meaning. After several teacher-initiated (MIZER initiated) activities, the children began to understand energy in relation to their own bodies. The symbol of MIZER was engrained in the children and they began to see MIZER in a variety of situations: work, play, happy faces, and suns. When they talked to MIZER the children referred to energy. Using the MIZER puppet, the children initiated various energy games.

BULLETIN BOARD: "ENERGY MAKES THINGS MOVE."

PURPOSE:

To help the children understand that energy is necessary to make things move.

CONCEPT:

Energy makes things move.

SKILL:

The children will become more observant of the ways that energy is used.

ATTITUDE:

The children will feel involved as they discover that they are constantly using energy.

MATERIALS NEEDED:

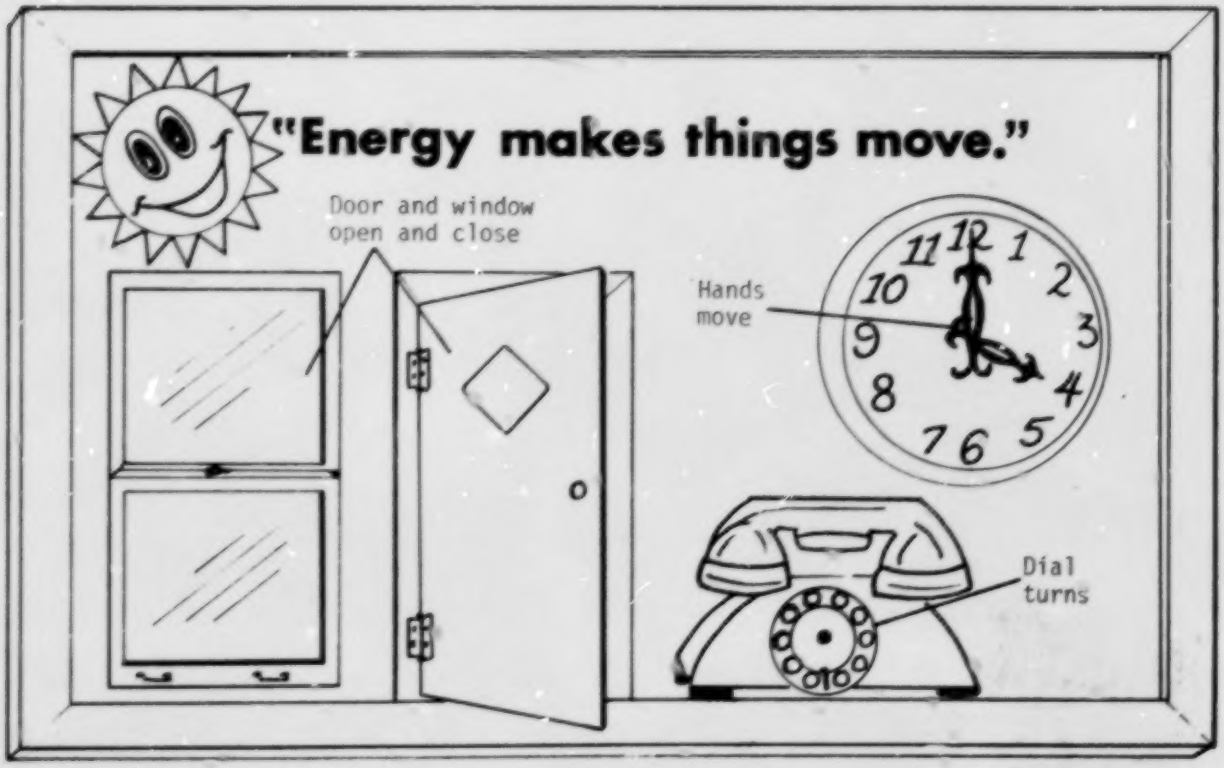
Construction paper, thumb tacks, staples, pins, magic marker for written letters.

PROCEDURE:

Put the bulletin board at a level that the children can reach because movable objects will be displayed. The children should be encouraged to move the objects: paper door, clock hands, telephone dial.

RESULTS:

The moving objects caught the children's attention. They dialed the telephone, moved the clock hands, and opened the door. Almost all of the children showed interest. Later, when the children suggested adding a window, it was made, with the children's help, and added to the bulletin board.



PUPPET: MIZER

PURPOSE:

To provide the children with a concrete and personable character that they perceive as friendly and helpful and interested in energy.

CONCEPT:

MIZER likes to talk about energy.

SKILL:

The children will associate MIZER with energy education and focus on MIZER and the topic of energy.

ATTITUDE:

The children accept MIZER and express interest in MIZER's ideas.

MATERIALS NEEDED:

Yellow fabric or paper for the main part of MIZER. Black rick-rack or color features if using paper for the trim. Black or white fabric for the eyes and mouth. (Can use buttons if sewn on securely), pattern, scissors, thread, needle or sewing machine. MIZER puppet pattern, letter #2.

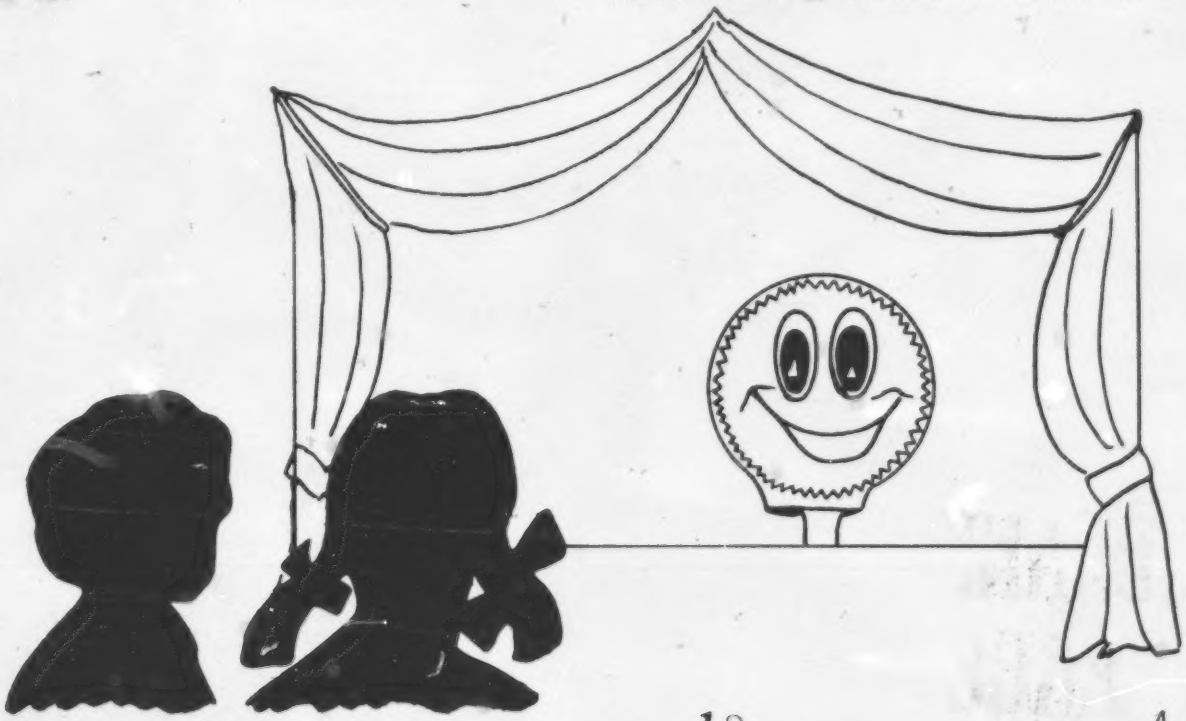
PROCEDURE:

Cut out material or paper using pattern. Cut 2 pieces. On one, sew rick-rack or color. Attach eyes and mouth. With right sides together, stitch, reinforcing at the openings. Tape or glue if using paper. Clip curves, turn, press.

Introduce the puppet to the children as MIZER. Use MIZER during group time, story time, music time, discussion time, and during transitions. Let MIZER introduce the energy topic, direct movement activities, refer to bulletin boards. Be sure to present MIZER as an ageless, non-sexist, friend who helps children discover energy information.

RESULTS:

The children were very interested in the puppet. They noticed that MIZER looked like the sun. The children called to MIZER, "Look, we're using energy." The children drew pictures of MIZER. MIZER letter number 2 has a pattern for making a MIZER puppet at home. After the children took that letter home, several returned to school with their own MIZER puppets that they had made with their parents, brothers, and sisters. With several MIZER puppets at school, the number of energy discussions increased.



CREATIVE MOVEMENT: THE MOVING GAME

PURPOSE:

To provide the children with an experience that increases their awareness of energy use.

CONCEPT:

"When we move, we use energy."

SKILL:

The children will gain motor skills and comparison skills as they move faster or slower and make large or small movements.

ATTITUDE:

The children will gain confidence in their ability to control the amount of body energy they use.

MATERIALS NEEDED:

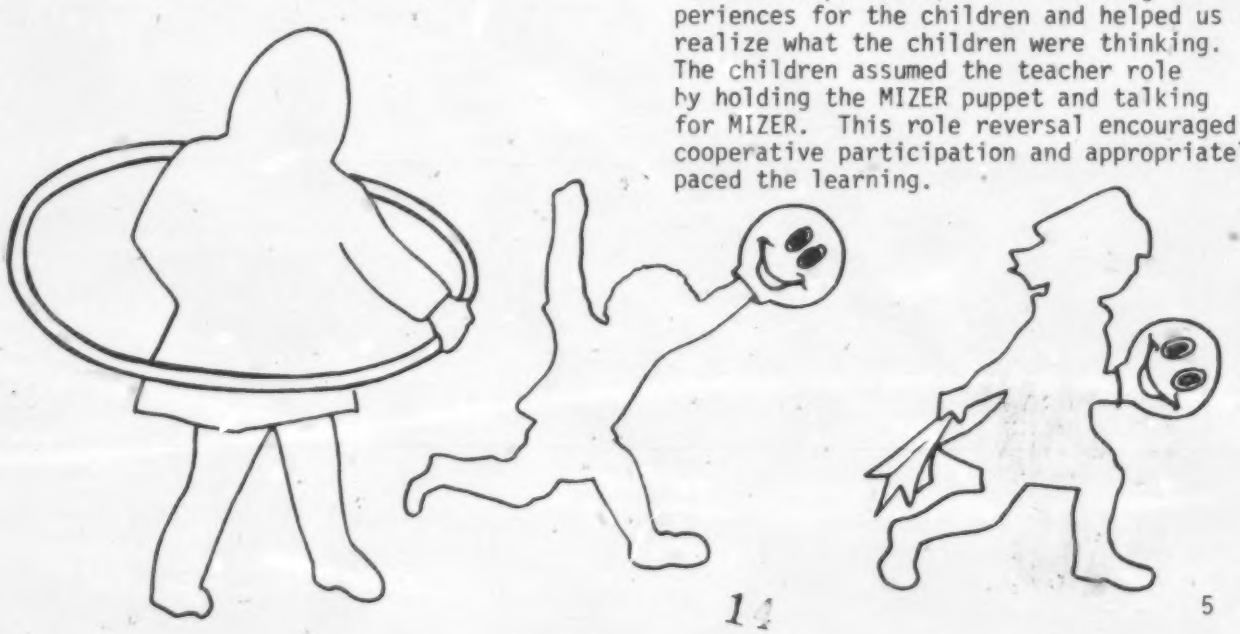
Use any record suitable for creative movement. We used "The Moving Game" on Hap Palmer's Creative Movements because various living things and machines that use energy, such as birds and airplanes are mentioned. Scarves, hoops, strings, and other creative movement props may be used.

PROCEDURE:

Encourage the children to move as the lyrics and/or music suggests. Direct the children's attention to the idea that, "When we move, we use energy." Suggest movements and comparisons of the amount of movement and energy used. "Let's move like an airplane. An airplane needs lots of energy to move. Moving fast takes lots of energy. Large movements use lots of energy."

RESULTS:

The children participated in a variety of movements and many children participated for long periods of time. Children of various ages, sexes, and interests participated. At first, the children did not discuss energy. When the children stopped to rest, MIZER would ask if they had used all of their energy. After this activity had been repeated several times, the children compared energy usage. Sometimes the children would ask for MIZER and the record. We found that some children were simply repeating the teacher's comments. This would indicate that the children were memorizing concepts to please the teacher. When this began, we reduced the number of teacher comments about energy. This was done to give the children an opportunity to think about the idea and discover the meaning for themselves. We found this provided better learning experiences for the children and helped us realize what the children were thinking. The children assumed the teacher role by holding the MIZER puppet and talking for MIZER. This role reversal encouraged cooperative participation and appropriately paced the learning.



MOVEMENT GAME: MIZER SAYS

PURPOSE:

To provide the children with experiences that increase their awareness of energy usage.

CONCEPT:

When we move, we use energy.
Moving fast uses lots of energy.
Moving slowly uses a little energy.

SKILLS:

The children will correctly follow directions.
The children will listen carefully.

ATTITUDE:

The children will gain satisfaction in being able to compare and control their use of body energy.

MATERIALS NEEDED:

MIZER puppet.

PROCEDURE:

MIZER Says is like Simon Says. At first the children simply learn to follow MIZER's directions:

"MIZER says, "Jump up and down."

Later the idea of following only the directions preceded by "MIZER says" was introduced.

"MIZER says,'Hop on one foot.'" (hop)

"Hop on one foot." (do not hop)

This activity can be done more quickly with small movements.

"MIZER says wiggle your nose."
"MIZER says raise your hands."

Large movements can be used at other times for comparison:

"MIZER says jump fast."
"MIZER says take big steps."

Later this game was used with an obstacle course:

"MIZER says climb the ladder."
"MIZER says jump down to the mat."

RESULTS:

This was the first time many children started to use the term energy. Doug said, "I am going to use some energy now. MIZER, watch me jump." Joel said, "I am not going to jump. I won't use any energy." If a child quit, MIZER said, "You must be tired. You have used a lot of energy." Some children said, "I am tired--all out of energy."

The children transferred these learnings to other experiences even several months later. When they tried different tumbling stunts, they commented some tricks make me use lots of energy. Some use only a little energy. They made similar comparisons when an OSU pom pom girl came to school. She showed the children ways to move with pom poms and scarves.

We realized that the children gauged energy use in terms of their own bodies. "Jumping uses lots of energy; standing uses less and sitting uses even less energy." We were careful to avoid value statements because we wanted the children to notice differences and trade off's. On field trips the children compared energy use when riding in cars or walking and riding elevators and escalators or climbing stairs. Again value statements were avoided. We resisted the temptation to tell the children that they should use stairs rather than elevators or escalators. Young children need many opportunities to compare energy use in terms of their own bodies before they can make decisions about which sources or amounts of energy to use. They realized that cars, elevators, and escalators moved and used energy. They also realized that riding did not use much human energy. Later they will make decisions about the energy trade-off's.

COOPERATIVE ART: MIZER MOBILE

PURPOSE:

To help the children relate to MIZER in a friendly way and to encourage discussion of energy.

CONCEPT:

We move our arms to draw.
We use energy when we move.

SKILL:

The children will develop small motor skills as they draw and construct the mobile. The children will develop communication skills as they discuss the project, MIZER, and energy.

ATTITUDE:

The children will develop a sense of common ability and group belonging as they work and plan together.

MATERIALS:

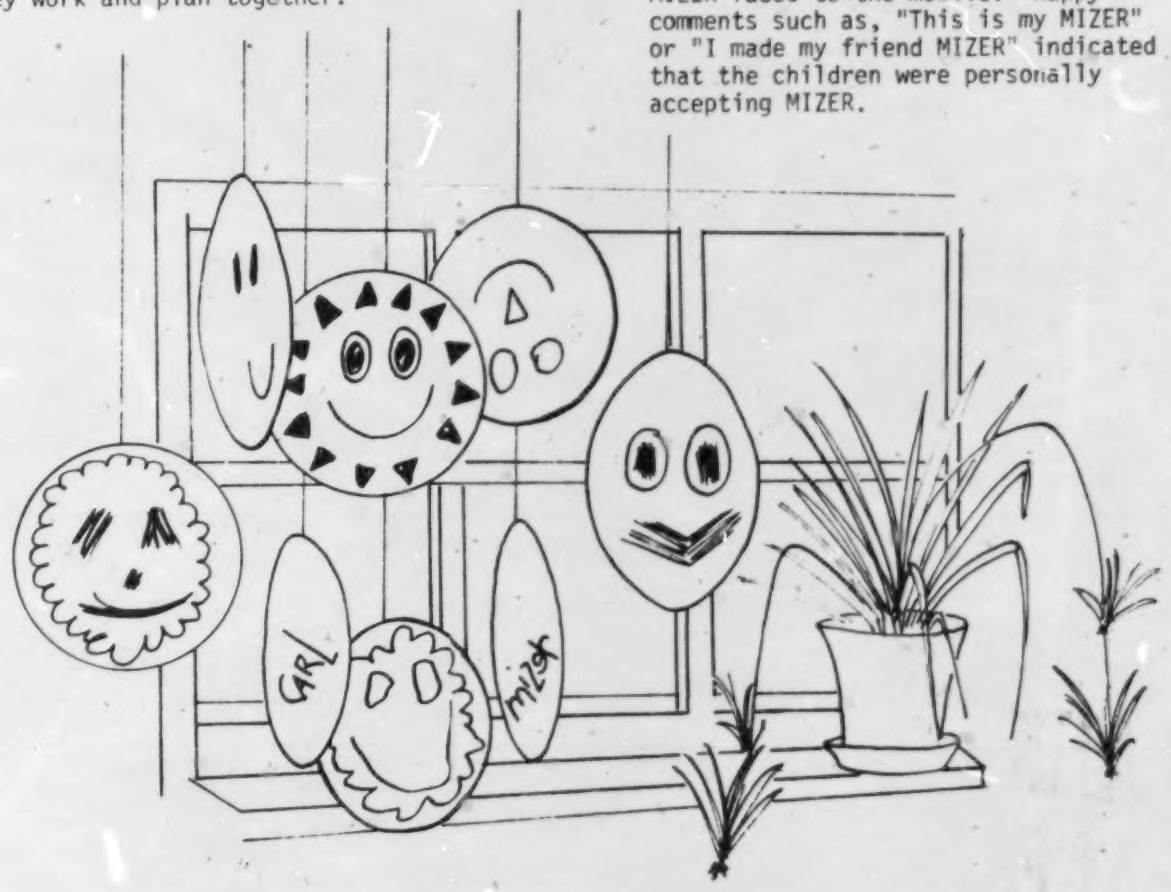
Paper plates, magic markers, yarn, stapler, hole punch. More elaborate designs might need glue, sewing and paper scraps, crayons, paint, and wire or string.

PROCEDURE:

The children drew MIZER faces on the paper plates and wrote MIZER's name and their own name on the plate. Then they attached yarn through a hole in the plate and hung the faces together as a mobile.

RESULTS:

The children wanted the mobile near a window so MIZER could see the sun. Every face was different but all were identified by all as MIZER. For several months, the children added new MIZER faces to the mobile. Happy comments such as, "This is my MIZER" or "I made my friend MIZER" indicated that the children were personally accepting MIZER.



"MIZER is making the table move."

By Jeremy Warden
Age 5

Understanding Basic Energy Transfer

PHYSICAL EDUCATION: SIMPLE SPORTS

PURPOSE:

To help the children realize that they can transfer momentum by directing one movement to cause another.

CONCEPT:

Energy makes things move.

SKILL:

The children will develop large motor skills.

ATTITUDE:

The children will feel a sense of power and pride in their ability to control the transfer of energy.

MATERIALS:

Bowling - old bowling pins from local bowling alley and a large, firm ball.

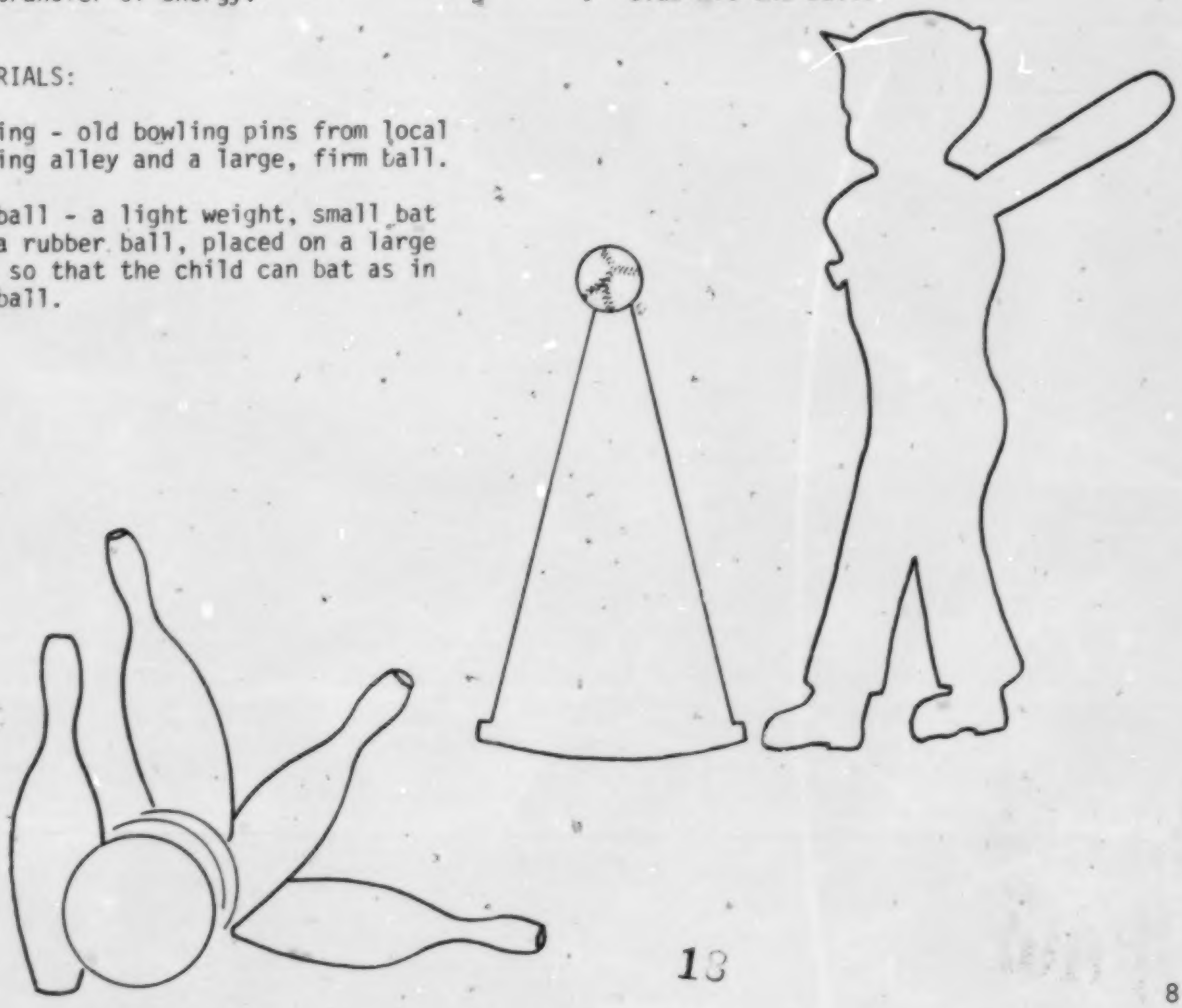
Baseball - a light weight, small bat and a rubber ball, placed on a large cone so that the child can bat as in tee ball.

PROCEDURE:

Set up the equipment with the children and show them how it is used. It may be helpful to visit a bowling alley to watch bowling or have a baseball player demonstrate batting. Teacher comments such as "You made the ball move by moving the bat." Help the children to observe the transfer of momentum.

RESULTS:

The children enjoyed these activites because they were successful at these modified, adult sports. They noted the transfer of energy: Doug said, "When I hit the ball hard, it moves fast." When they played other sports, such as golf and bean bag toss, they mentioned energy and energy transfer. "I made the club hit the ball."



FOOD PREPARATION: CHURNING BUTTER

PURPOSE:

To give the children an opportunity to observe energy transfer as they make things move.

CONCEPT:

Energy from my moving arm makes the handle move.
The moving handle makes the paddles move.
The paddles make the cream move.

SKILL:

The children will gain motor skills and stamina as they turn the handle. They will develop social skills as they co-operate and work together to make butter.

ATTITUDE:

The children will appreciate the effort required to make butter in this way.

MATERIALS:

Cream, a butter churn (preferable one with a clear container so the process can be seen), crackers, salt, and a spreading knife.

PROCEDURE:

Pour cream into churn and beat. Lumps will appear and get larger until all the butter is separated out. Put butter in a bowl and cover it with water. Wash the butter until all the water is clear, then drain. Lightly salt and mix into butter. Eat butter on crackers at snack or lunch.

RESULTS:

The children watched carefully to see how the churn worked. They felt the use of energy, "I'm using lots of energy; my arm is getting tired." Several of the children associated energy with work and becoming tired.

The same learnings occurred when they used a hand crank ice cream freezer and a hand operated egg beater. Making popcorn was a more advanced activity because it included heat and movement, but the children noted the transfer of energy and electricity as the source. The learning can also be extended in creative movement when the children move like popcorn.

WIND: SAILBOATS

PURPOSE:

To help the children better understand the transfer of momentum and introduce a source of energy through activities involving wind.

CONCEPT:

Wind is moving air.
Wind touches the sail and makes the boat move.

SKILL:

The children will develop small motor skills as they construct sail boats.

ATTITUDE:

The children will take pride in their ability to harness energy and begin to value wind.

MATERIALS:

Styrofoam squares, toothpicks, tape, paper triangles for sails, a water table or a large, flat container of water.

PROCEDURE:

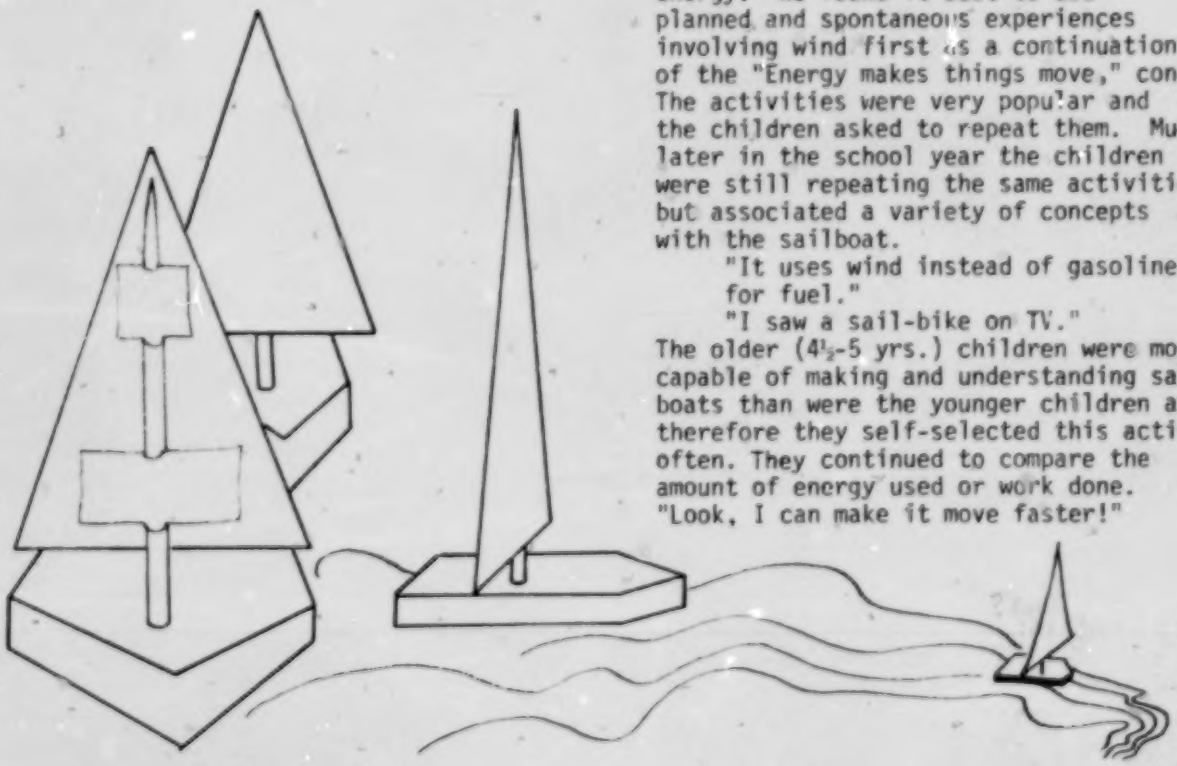
Assemble a sailboat by taping a paper sail to a toothpick and inserting the toothpick into the styrofoam. Float the boats on water and the children may blow on the sail to make the boat move or do this activitiy outside on a windy day.

RESULTS:

Because the weather was windy, the children were very much aware of the wind's ability to move things. Usually this discovery was part of an unpleasant experience such as the wind blowing their picture away. This sailboat activity helped develop a more positive attitude. This activity forms a link to several energy topics: sources of energy, transporation, and transfer of energy. We found it best to use planned and spontaneous experiences involving wind first as a continuation of the "Energy makes things move," concept. The activities were very popular and the children asked to repeat them. Much later in the school year the children were still repeating the same activities but associated a variety of concepts with the sailboat.

"It uses wind instead of gasoline for fuel."
"I saw a sail-bike on TV."

The older (4½-5 yrs.) children were more capable of making and understanding sailboats than were the younger children and therefore they self-selected this activity often. They continued to compare the amount of energy used or work done. "Look, I can make it move faster!"

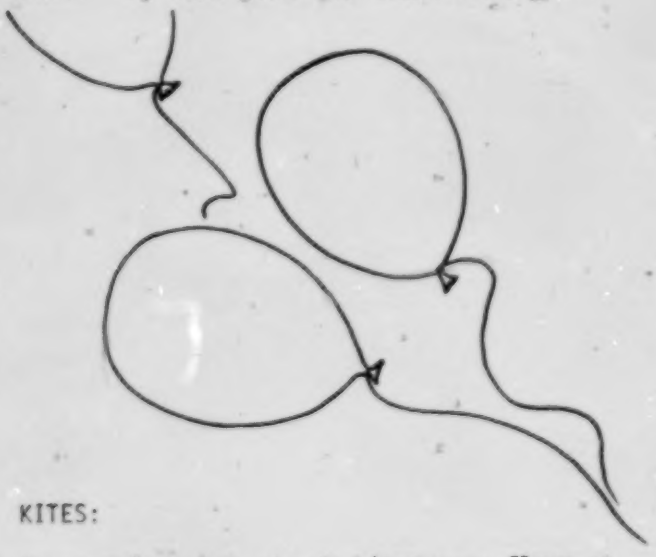


PURPOSE:

To modify some traditional activities involving wind energy so that the chidlren can successfully harness the wind's energy.

BUBBLES:

Use funnels to blow giant bubbles. Put funnel upside down in a bowl of detergent solution. Gently blow a few bubbles into the large bowl to allow a film of soapy solution to coat the inside of the funnel. Lift out the funnel and blow softly. This activity required a lot of teacher assistance until the children mastered the technique. Younger children prefered to chase or watch the bubbles grow, and pop in the wind. "My wind gives the bubble energy."

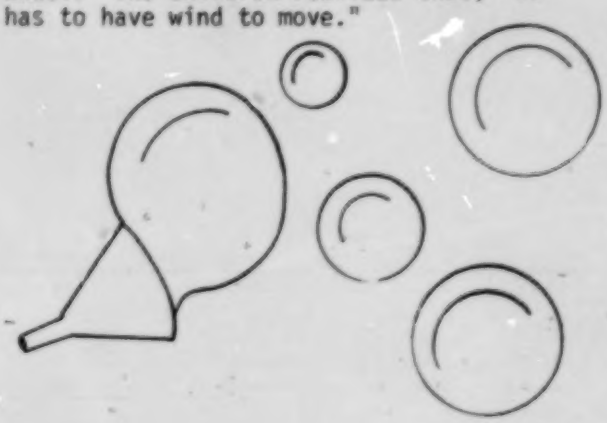


KITES:

Inexpensive, but sturdy kites were flown at school. The adults participated while the children rather passively watched in wonder of frustration from not being able to "fly it myself." School-made kites of construction paper and string were much more appropriate because the children could manage them independently and discover for themselves the best way to catch the wind. "It flies up when I run to the wind."

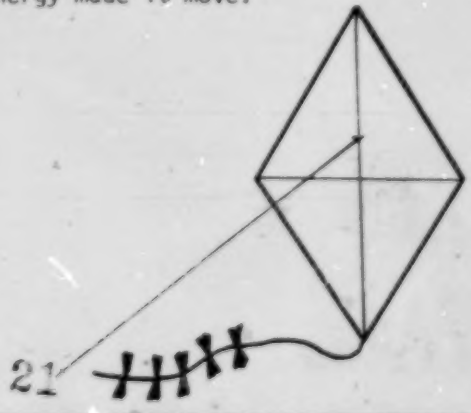
PINWHEELS:

Provide store bought pinwheels. They were inexpensive and readily available in March. Home-made pinwheels usually do not work well because the paper tears or the fastener breaks resulting in frustration rather than rewarding learning. The children ran, stood still, and rode trikes with the pinwheel. The children realized that, "It has to have wind to move."

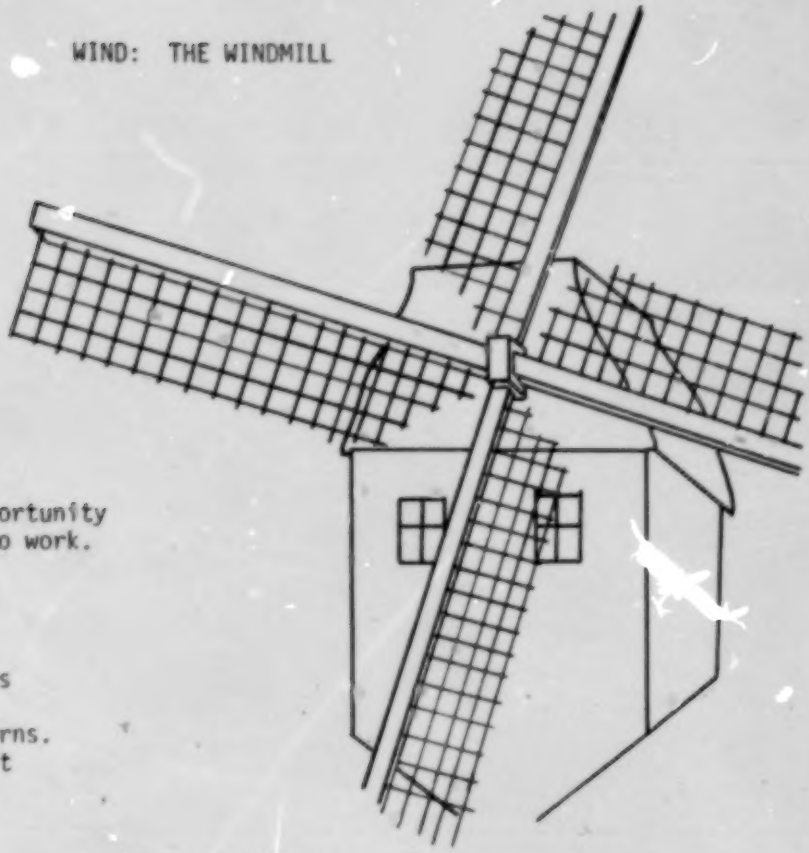


BALLOONS:

Provide strong balloons and help the children blow them up and tie them. Tie a string on each balloon and then on the child's wrist. As they played the children noticed differences in the way the balloon moved and the way they moved. "The wind made my balloon move." When this experience was repeated the children tied balloons to stationary objects like the slide to see if the wind would make it move. They also released balloons before trying them. "Energy made it move."



WIND: THE WINDMILL



PURPOSE:

To provide the children with an opportunity to manipulate a model windmill to do work.

CONCEPT:

The wind hits the windmill and makes it turn.
When the windmill turns, a crank turns.
The rope tied to the crank will lift things as it winds up.

SKILL:

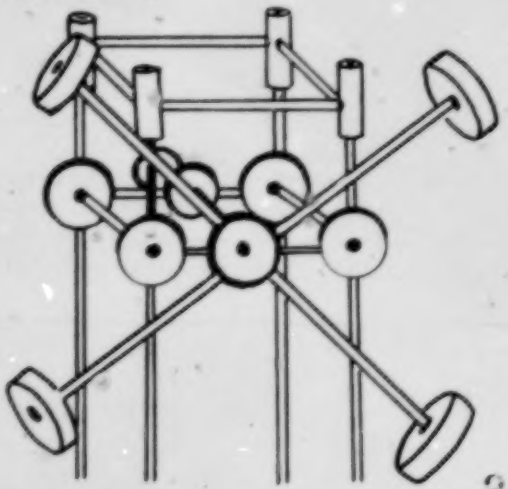
The children will develop observation skills as they construct and watch the windmill.

ATTITUDE:

The children will feel a sense of accomplishment and mastery as the vague concept of a windmill has more concrete meaning.

MATERIALS:

Picture of a windmill. Tinker toys, rope or cord, instructions.



PROCEDURE:

Assemble the windmill as described in the Tinker Toy Instructions. We used the Giant Tinker Toys but any size can be used. Tie a rope or cord to the main axle of the windmill so that it wraps around the axle as it turns. Then tie objects to the rope so that the turning windmill lifts the object.

RESULTS:

The children were very interested in seeing how the windmill worked. Most of the children could correctly identify the windmill in a picture, but could not explain how it worked. Using a model indoors gave the children an opportunity to manipulate and control the revolutions. They turned it carefully using their hands or by blowing on the blades. The children cooperatively moved it "faster," "slower," "start," and "stop" to accomplish certain tasks. When the model windmill was used outdoors on a windy day, the children solved some realistic problems in controlling the wind's energy. On a field trip, we passed a windmill which the children happily identified and told MIZER about. Joel said, "Inside the house part there are poles turning around when the wind blows."

"MIZER is smiling because this person is riding the bike slowly."

By Jeremy Warden
Age 5

Using Energy Wisely

TABLE GAME: MIZER Says

PURPOSE:

To help the children learn ways of using energy wisely at school and at home.

CONCEPT:

We can use energy wisely.

SKILL:

The children will begin to evaluate energy usage.

ATTITUDE:

The children will begin to develop a sense of responsibility for the wise use of resources.

MATERIALS:

Use MIZER letter #6, "MIZER SAYS" to make the table game. The game can be mounted on cardboard or drawn on poster paper. Color and cut out shapes and numbers. Cover the game board, shapes, and numbers with clear contact paper to protect the surface.

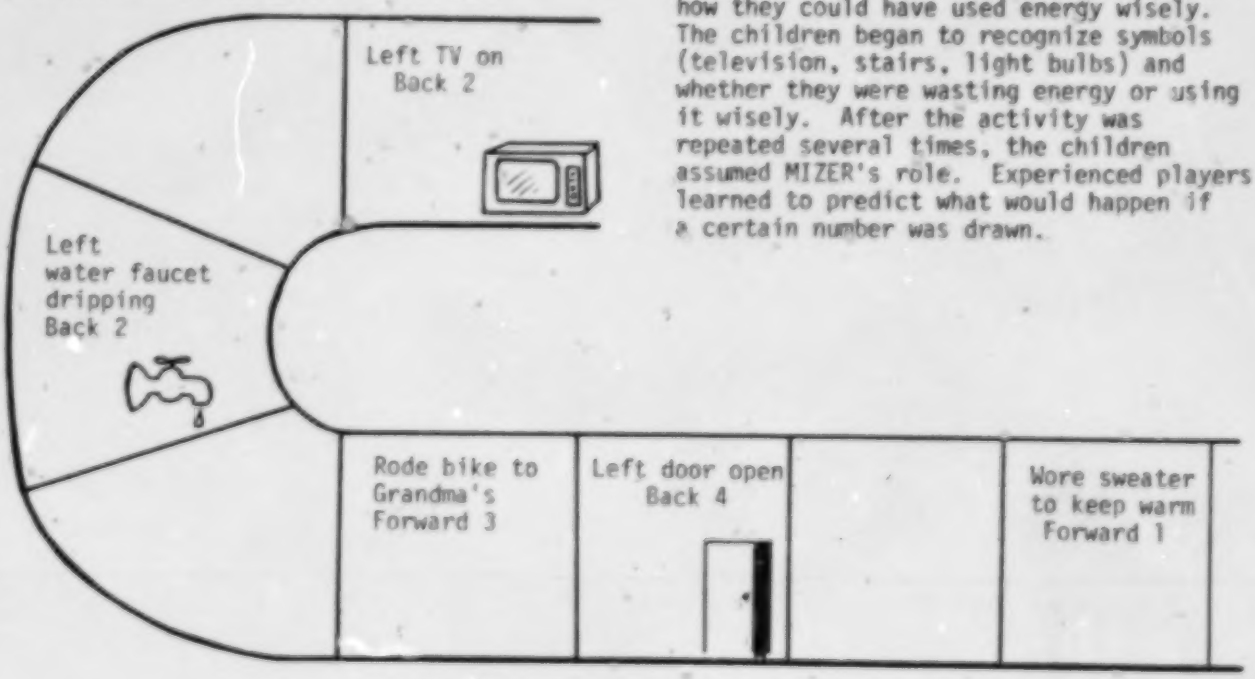
PROCEDURE:

Let each person choose a shape. Draw a number card to see which player goes first. (Highest number goes first). The rest follow in a circle. Draw a number card and move forward that number of spaces. The first person to reach the last square wins. When a player lands on a square with words, those directions are followed. During and after the game, encourage the children and adults to talk about the wise energy habits their families use at home.

RESULTS:

The game is a little advanced for three- and four-year-olds. The first few times the children devoted all of their attention to how the game was played. After they learned how to play the game, the children focused on energy usage: "We should turn the lights off in the school when we go outside." Dina said, "Shut the refrigerator door quickly to use energy wisely."

In order to meet the needs of more active children, the MIZER Says game was drawn on the side walk. The MIZER puppet gave instructions. When spaces were lost for wasting energy, the children told MIZER how they could have used energy wisely. The children began to recognize symbols (television, stairs, light bulbs) and whether they were wasting energy or using it wisely. After the activity was repeated several times, the children assumed MIZER's role. Experienced players learned to predict what would happen if a certain number was drawn.



FISHING: ENERGY TIPS TO TAKE HOME

PURPOSE:

To provide a link between home and school by letting the children take home written energy tips.

CONCEPT:

We can learn ways to use energy wisely at home and at school.

SKILL:

The children will develop eye-hand coordination skills as they "fish" and communication skills when they tell their families about the tips.

ATTITUDE:

The children will feel that wise energy use is valued at home and at school.

MATERIALS:

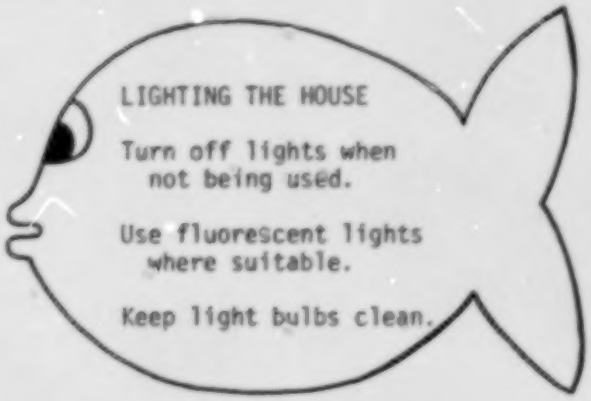
Paper, scissors, pencil or ditto sheets, paper clips. Write energy tips on paper, cut in the shape of a fish. Contact the authors for a list of tips, use tips included with MIZER letter #4, or ask the children for some tips.

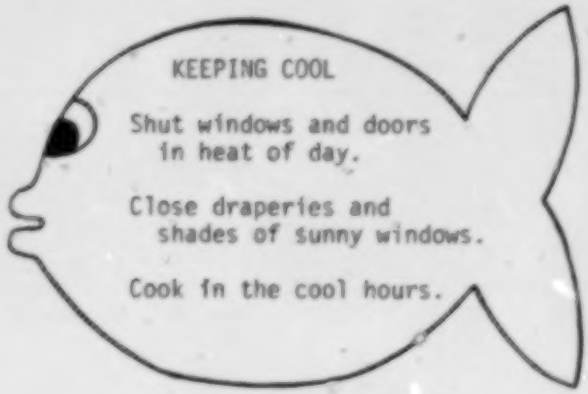
PROCEDURE:

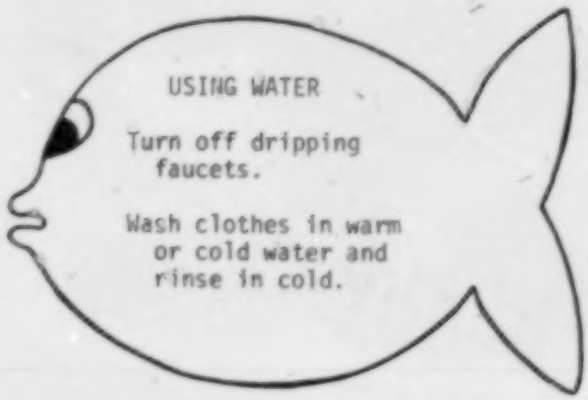
Attach a paper clip to each "fish" and put them in a fish bowl. Attach magnet to string which is attached to a "fishing pole." Just before the children go home, they fish for an energy tip. Use the paper clip to attach the fish to the child's clothing to wear home.

RESULTS:

This was very successful. It was exciting for the children and made them feel important. They wanted to read everyone's tip so they could learn how to use energy wisely. They greeted their parents with, "Read what my fish says!" The parents said, "We'll have to remember to do that," or "We already do that."







PURPOSE:

To help the children identify and predict wise and wasteful energy usage.

CONCEPT:

We can tell when energy is used wisely and when it is wasted.

SKILL:

The children will gain prediction and problem solving skills as they evaluate energy usage.

ATTITUDE:

The children will take pride in this responsibility for the wise use of energy.

MATERIALS:

Magazines, scissors, construction paper, markers.

PROCEDURE:

Cut out pictures of energy being used wisely, such as: closed refrigerator door; and pictures of energy being wasted, such as: a television set left on when no one is watching. Cut out MIZER faces with some smiling and some frowning. These can be used in several ways:

BULLETIN BOARD:

Divide a bulletin board in half with the caption "Energy" above. One side is labeled "Wasted" the other side is labeled "Used Wisely." The children select pictures and MIZER faces for each category. Print the children's statements near the pictures on the bulletin board.

ENERGY BOOK:

Staple pages of paper together to make individual books for the children. Provide pictures of people using energy and let the children indicate which pictures show energy being used wisely and which ones show energy being wasted. Encourage the children to draw their own pictures of how to use energy wisely. Print in the books what the children mention about using energy.

MIZER MATCH:

Make 2 sets of picture cards by mounting magazine pictures and covering them with clear contact paper. One set of pictures shows energy being used wisely. The other set shows the same type of equipment, but energy is being wasted. Let the children sort, match, and classify these cards.

MIZER FACES:

Make happy and sad MIZER faces. Encourage the children to find places at school where energy is being used wisely and place smiling MIZER faces there. Place sad MIZER faces where energy is being wasted. As the children and adults learn to use energy more wisely, the frowning faces are replaced by smiling MIZER faces. Let the children take some home, if they like.

RESULTS:

The children were able to remember, identify, and predict wise and wasteful energy usage. They became adept at finding new ways to use energy wisely. When they observed energy being wasted, they suggested ways to solve the problem. Joel saw a picture of an open oven door, "They're wasting energy. They left the door open and the oven is on. There isn't even any food in it." Cinda said, "April and Katherine left the bathroom sink on. They are wasting energy. Put MIZER there to remind them to turn it off when they're through."

SWITCHBOARD:

Children enjoy flipping switches on and off. Emphasis on wise energy use will tend to encourage more flipping of switches. We found it wise to provide a switch board which had a lot of levers and switches for the children to turn off and on. They were clearly labeled. This helped the younger children understand and "read" off and on. We also provided a small electrical circuit so the children could understand how electricity is allowed to flow and stop. This apparatus consisted of a small light bulb, a battery and manual circuit breaker with connecting wires.

FLANNEL BOARD STORY: MIZER AND THE DRAGON

PURPOSE:

To help the children realize that the wise use of energy is a community responsibility.

CONCEPT:

We can help each other use energy wisely.

SKILL:

The children will develop memory skills as they help each other remember how the dragon wasted energy and the ways MIZER suggests for using energy wisely.

ATTITUDE:

Because this activity is a review of concepts the children are already familiar with, they will feel a sense of accomplishment.

MATERIALS:

Flannel board and flannel board figures, script, MIZER puppet.

PROCEDURE:

Present the story to the children using the script and patterns as a guide. Afterwards, help the children recall how the dragon misused energy. Name the ways MIZER used energy wisely.

RESULTS:

This story was highly appropriate for young children. It was presented to all of the children as a group experience. The materials were available and the children self-selected this activity. When the children told the story and manipulated the flannel board figures they added some ideas of their own, such as placing the dragon in the car. After more experience with the story, the children added more tips, "Turn off water when you're through washing your hands."

MIZER and the Dragon

Once upon a time in the land of Stillwater, there lived a wicked dragon. The wicked dragon was always wasting energy. When he left a room, he would leave the lights on. What a waste of energy! If he had finished watching television, he didn't bother to turn it off. He would just leave the television set on. And he drove his car, everywhere, even to his grandmother's house which was only a block away. He was always wasting energy.

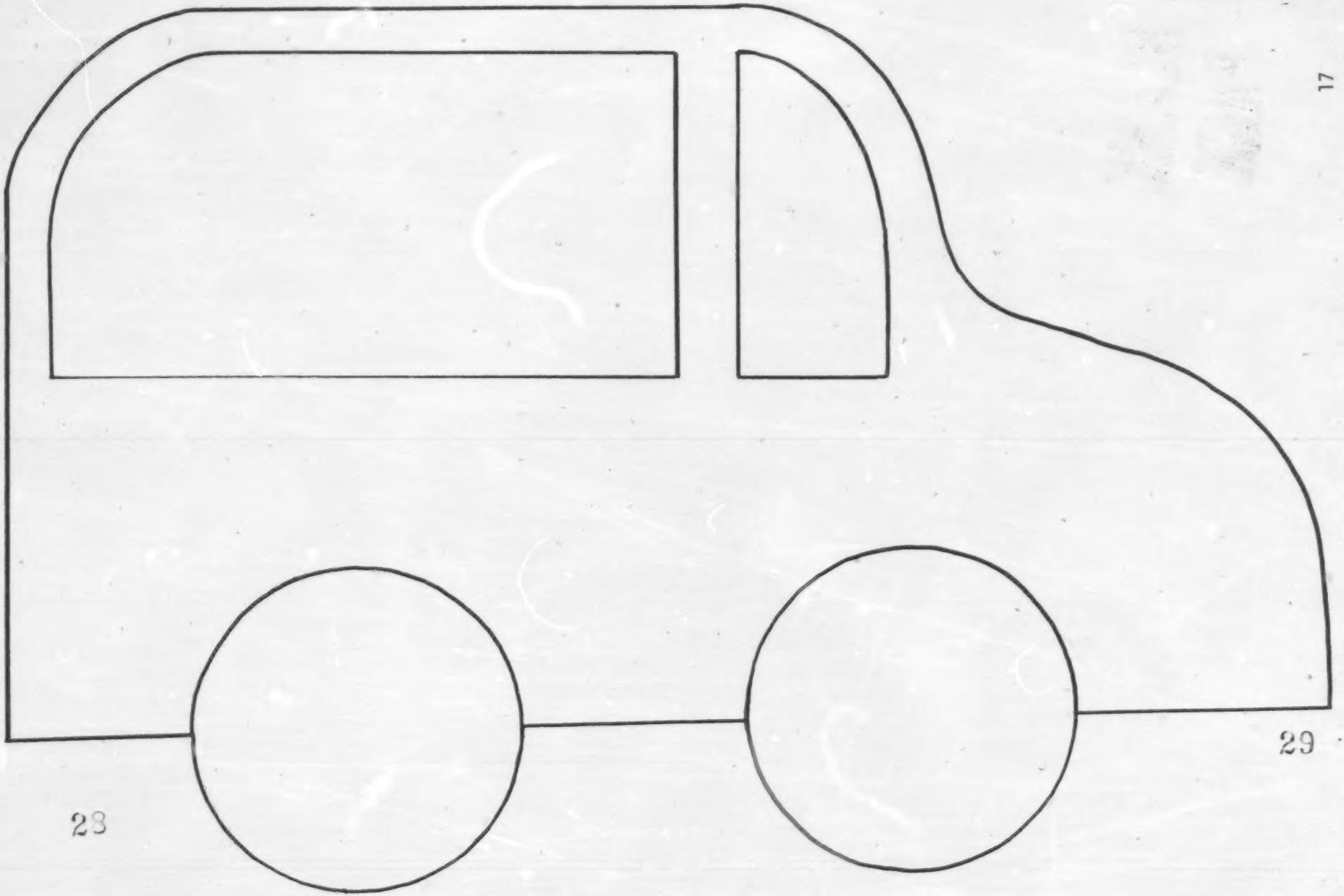
The people who lived in Stillwater were quite worried about the wicked dragon. They knew if he continued to waste energy there would be none left for the future. They decided to go to the most helpful person in town and find out how they could stop the wicked dragon from wasting energy. So they went to MIZER.

MIZER told the people of Stillwater that the dragon was not really wicked, he just didn't know how to use energy wisely.

So MIZER went to the dragon and explained ways to use energy wisely. When you leave a room, be sure to turn the light off. It is a waste of energy to leave lights on in a room if no one is there. The same is true with your television. Turn it off when you're not watching it. It's good exercise besides using energy wisely to walk instead of driving your car when going short distances. This is using energy wisely.

The dragon realized how wasteful he had been with energy. He decided he would learn to use energy wisely. So the dragon was smart. He learned to use energy wisely.

Adapted from "There Lived a Wicked Dragon" an environmental coloring book (SW-105) for children and adults written by Martha Finn for the Federal Solid Waste Management Programs, 1977.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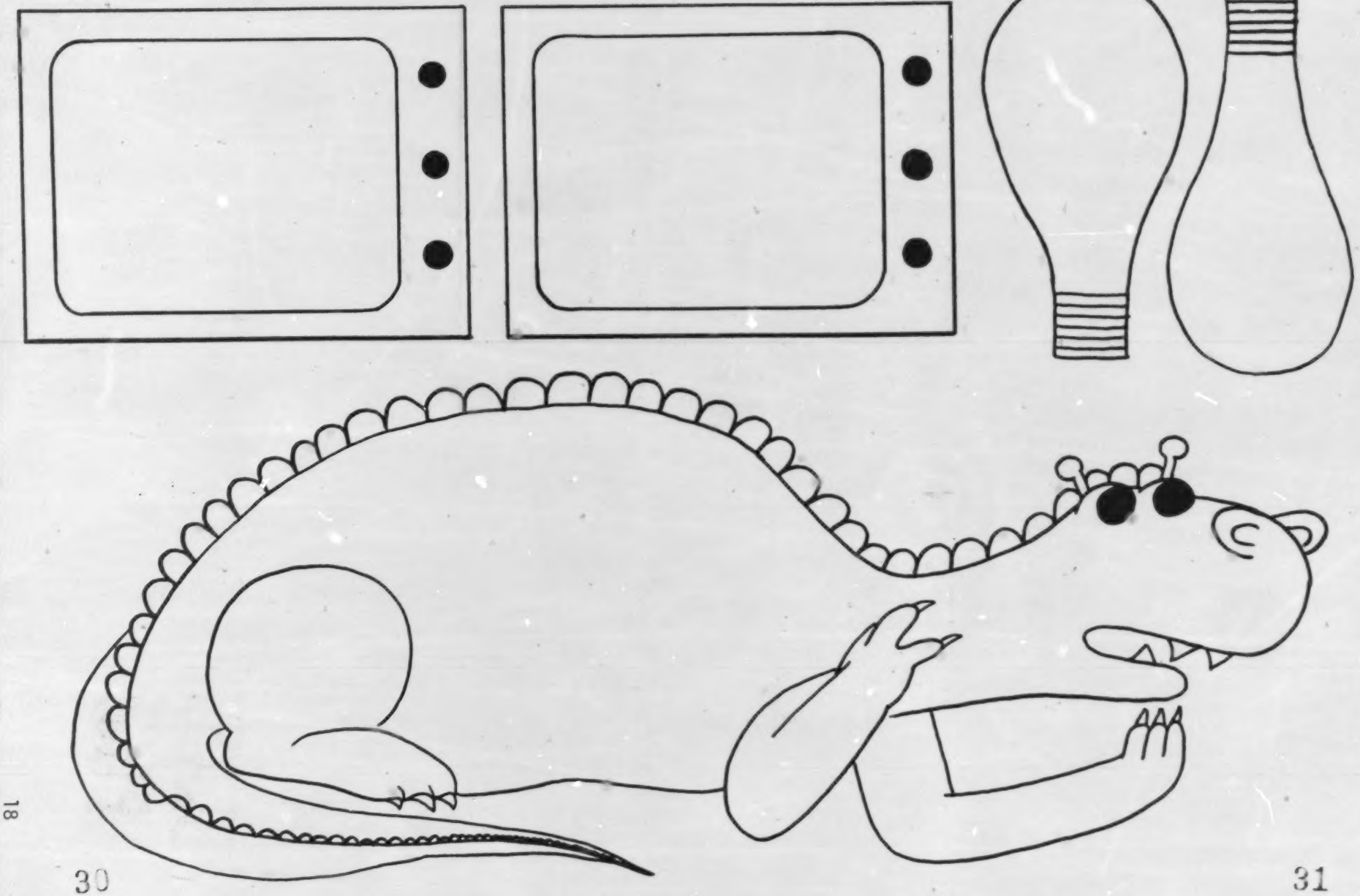


PUPPET PLAY: ENERGY ELVES

PURPOSE:

To help the children identify with "Smarty" the elf who makes a special effort to learn about energy.

CONCEPT:

We can learn to use energy wisely.

SKILL:

The children will remember the energy tips presented during the puppet show and contrast and compare the elves' attitudes.

MATERIALS:

Elf puppets, script, puppet stage, MIZER puppet.

PROCEDURE:

Use patterns to make stick puppets. There is a children's version of the story for use at school. The adult version, which is readily available from the author, may be used at a parent meeting.

RESULTS:

Children watched the puppet show with great interest. They especially remembered Speedy and the familiar MIZER was reassuring. Because the script presents some new ideas, it should be available for self selected use.

ENERGY ELVES

What would happen if we suddenly ran out of energy? Lights would go out. Heaters would stop. Cars, trains, ships, and planes could not move. If we ran out of energy, we would not be able to use these things to take us places. We would have to move everywhere with our own body energy.

Everybody uses energy. Here are seven energy elves. Only one uses energy wisely. All of the other elves waste energy. Do you know anyone who wastes energy?

This is Speedy. Speedy is an elf who doesn't believe there is an energy problem. Speedy drives a very big car. Speedy drives that car everywhere. Speedy drives the big car very fast, and that wastes energy. Speedy would use energy wisely by driving a small car slowly.

This is Shy (Timid). Shy thinks there might just be an energy problem, but is afraid to talk about it. Shy is scared to ask people how to use energy wisely. Shy buys things just becase other people say to buy them. Some of these things don't use energy wisely. Shy would use energy wisely by thinking and asking questions about how to use energy wisely.

Grumpy doesn't think we can do anything about the energy problem so Grumpy just gripes! Grumpy says, "Nobody told me that big cars use more gasoline than small cars." Grumpy blames other people but Grumpy should be finding out about energy instead of complaining.

Greedy doesn't use energy wisely because Greedy is selfish. Greedy uses all the energy. Greedy doesn't care if other people don't have enough energy. Greedy would use energy wisely by using only the energy that has to be used.

Careless knows how to use energy wisely but forgets. Careless leaves lights on when no one is using them. If Careless remembered to use energy wisely, Careless would turn lights off when no one is using them. Careless doesn't turn the water faucets off. If Careless always remembered to turn the water faucets off, Careless would be using energy wisely.

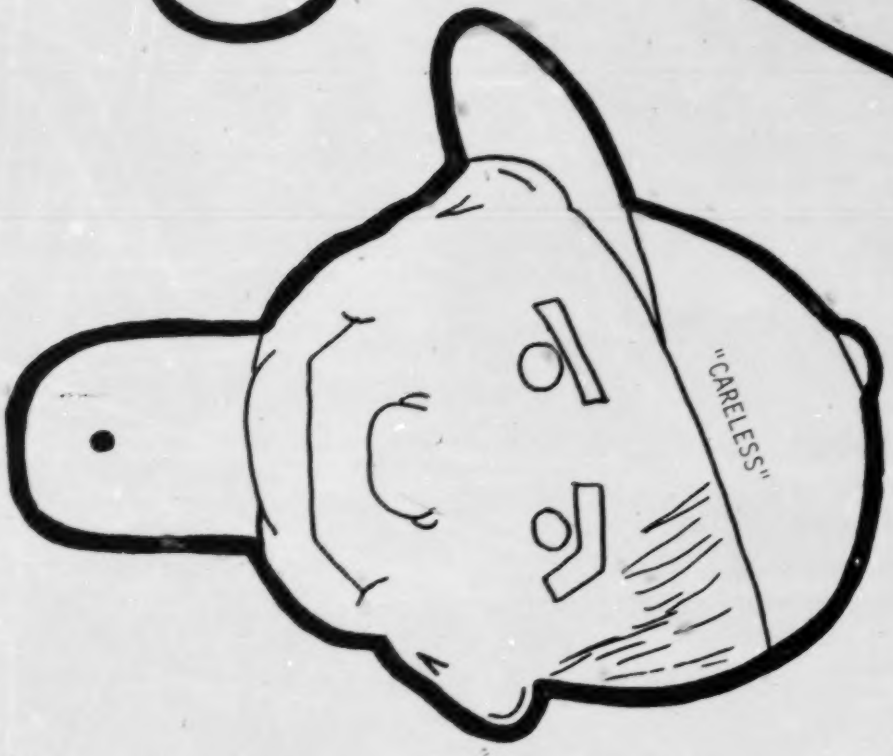
Dummy wastes energy because Dummy does things without thinking. Dummy doesn't even try to learn how to use energy wisely because Dummy thinks somebody else will solve the energy problem. Sometimes Dummy gets very scared! Dummy gets so scared and does things without finding out if they really save energy. Dummy could use energy wisely by listening to MIZER and learning how to use energy wisely.

Smarty (Efficient) is like you. Smarty knows there is an energy problem and does everything to use energy wisely! Smarty fixes things instead of throwing them away. Smarty also uses energy wisely by using human energy instead of electrical or fuel energy. Smarty rides bicycles instead of using a car or Smarty walks up stairs instead of riding the elevator.

The authors acknowledge the use of material from "Consumer Dwarves and the Energy Crunch," by Mary Harrison, Extension Specialist in Consumer Education, Florida Cooperative Extension Service.

"SPEEDY"

"GRUMPY"


"CARELESS"

21

By Carl Burch
Age 4

Sources of Energy

TABLE GAME: MIZER BINGO

PURPOSE:

To help the children realize that there are different sources of energy and different forms of energy.

CONCEPT:

We can get energy from different things: sun, electricity, fuel, running water, people.

SKILL:

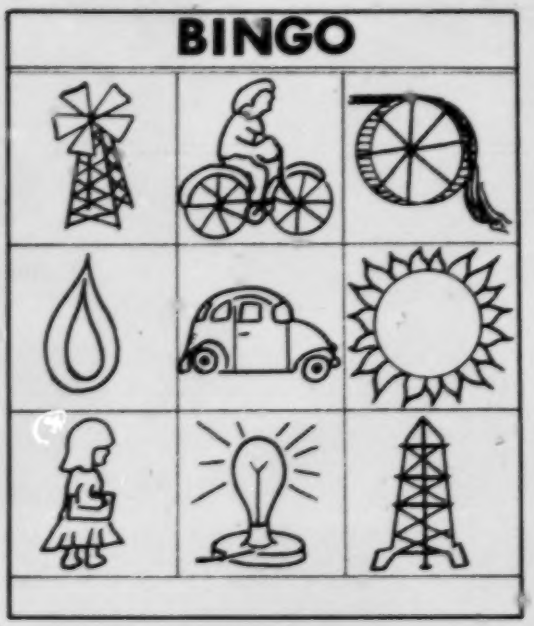
The children will develop reading readiness as they improve their visual discrimination skills.

ATTITUDE:

The children will gain feelings of competence and success as they learn to watch for detail.

MATERIALS:

Bingo cards that are various arrangements of the sample, call cards to match each of 9 sections, MIZER markers, all covered with clear contact paper.



PROCEDURE:

Each child selects a Bingo card. The teacher holds up the call card. The child locates the identical picture on the Bingo card and covers it with a MIZER marker. Three in a row or a full card is Bingo!

The teacher may identify the call card, "A boy riding a bike is using human energy," which gives the children some information. The teacher may choose to conduct the game non-verbally so that the children use their visual discrimination skills and supply their own language labels.

The game may be made more complex by adding symbols of steam energy, atomic energy, batteries, wood, coal, and other energy sources and forms. The MIZER Match game on MIZER letter #1 can be converted to Bingo for a very special challenge.

RESULTS:

We found it best to limit each card to nine of the same items to lessen each child's waiting time. The experience was much more successful when the children assumed the caller's role. When different pictures were similar in shape or had the same language label, the children had to look more closely.

The children first understood that "the girl walking and the boy on the bike use human energy" probably because this is their egocentric reference and the initial focus of the MIZER curriculum.

Bingo Markers

CLASSIFICATION AND MATCHING

PURPOSE:

To help the children realize that different machines use different sources and forms of energy.

CONCEPT:

A flashlight uses a battery for energy.

SKILL:

The children will learn to associate items that are used together, rather than items that are identical, which will develop basic classification skills.

ATTITUDE:

The children will gain a sense of closure if they match all items to completion. Those who match items more creatively will feel that their ideas are valued.

MATERIALS:

Nine cards depicting energy sources and nine cards depicting machines. See MIZER letter #1 for sketches. Protect cards by covering them with clear contact paper.

PROCEDURE:

Place the cards on a table and encourage the children to sort and discuss the pictures.

RESULTS:

The children enjoyed looking at the pictures and talking about them. Most children associated the car and gas pump, the flashlight and battery, and the sailboat with the wind because of their earlier experiences. The children helped each other with the more difficult ones, "You plug in a refrigerator," "Sun makes clothes dry." There may be more than one "correct" pairing so the adults tried to remain open-minded. For example, "Rain washes the car," was a "correct" answer because the goal is not to complete the set, but to become more aware of different sources of energy. Very few children were familiar with the water wheel. A field trip to see a water wheel or a homemade one with spoons might be useful.

PURPOSE:

To help the children realize that there are several sources and forms of energy used to do different jobs.

CONCEPT:

These machines plug in. They use electricity.

SKILL:

The children will develop basic classification skills.

ATTITUDE:

The children will feel that their ideas are worthwhile.

MATERIALS:

Large pictures depicting energy sources: an electrical outlet and plug, a person, the sun, the wind, a gasoline pump; Several smaller pictures of machines: hammer, clothes on a clothes line, dryer, bicycle, car, sailboat. These pictures were mounted on heavy poster board and covered with clear contact paper to make them durable.

PROCEDURE:

Introduce one energy source at a time with appropriate pictures of machines. Eventually the children will classify all of the examples, but categories should be added gradually as the children master each task. There are several ways to classify these items and different ideas should be respected.

RESULTS:

The children liked to look at the cards and group them, but they preferred to develop their own groupings. "These go outside. These go inside." Most machines classified as "inside" used electricity and most of those classified as "outside" used sun or wind for energy. It was tempting to classify machines for the children, imposing our predesigned categories. We managed to resist the temptation and the categories that evolved from the children's ideas provided an excellent basis for energy education, "these (hammer, shovel) are for little jobs; they use people energy. These (bulldozer, truck) are for big jobs; they use gasoline." And, "Bikes are for short trips. Cars are for long trips."

SOLAR ENERGY: BULLETIN BOARDS

PURPOSE:

To help the children understand that the sun is a source of usable energy.

CONCEPT:

The sun makes things hot. We can get energy from the sun.

SKILL:

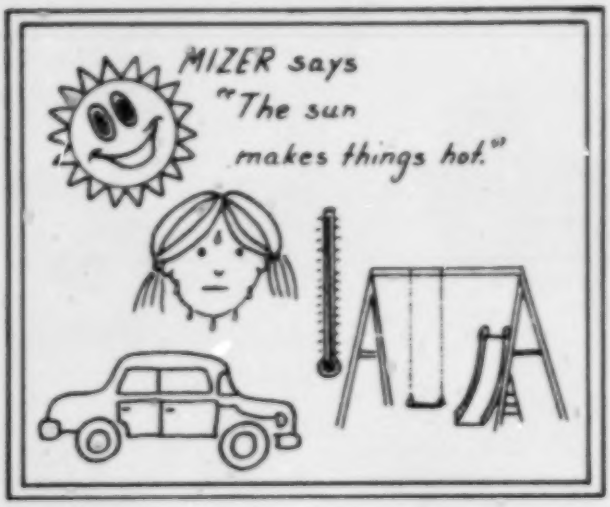
The children will develop pre-reading skills as they "read" and discuss the bulletin boards.

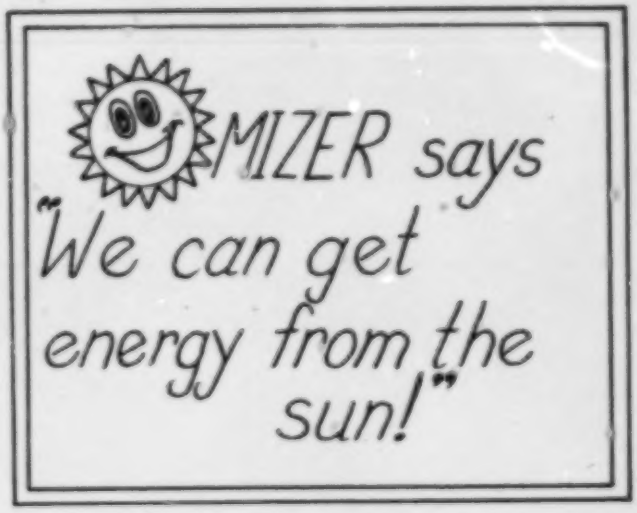
ATTITUDE:

The children will recognize MIZER and appreciate the pleasing appearance of the bulletin board.

MATERIALS:

Two bulletin boards and tables, pictures of things that get hot in the sun, and solar cells.





PROCEDURE:

Set up the bulletin board that says, "The sun makes things hot," first. The other bulletin board should be added later when the children have associated the sun with energy and heat.

RESULTS:

The children wanted to know what MIZER was saying on the bulletin board. They added more pictures of things that get hot in the sun: trikes, juice, water. As they conducted experiments, they placed the materials tested on the table by the bulletin board and we wrote down the results, "Sand gets very hot in the sun, but wet sand does not get very hot." Thus the bulletin board served as a focus for the learnings about energy. The second bulletin board served as a focus for apparatus that use solar energy: solar cookers, solar cells, solar motors.

SOCIAL STUDIES: THE SOLAR COOKER

PURPOSE:

To provide an experience which illustrates how people can use available resources successfully.

CONCEPT:

A solar oven makes the sun cook food.

SKILL:

The children will improve their observation and listening skills.

ATTITUDE:

The children will appreciate successful problem solving.

MATERIALS:

Flannel board and pictures.
(1) The people in India were low on fuel.
(2) They needed energy to cook their meals.
(3) Then one day, they looked up in the sky,
(3) And saw the sun shining, way up high.
(4) They made a reflector to direct the sun's heat,
(2) And they used solar energy to cook their meat.

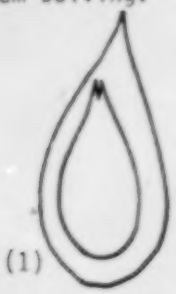
(make reflector of aluminum foil)
Solar cooker made from an umbrella or a box lined with aluminum foil.

PROCEDURE:

The flannel board song was presented to the entire group of children. Then sausages were cooked outdoors in a solar cooker.

RESULTS:

The children listened attentively and asked that the song be repeated several times and they learned it well enough to sing along. Even many weeks later, the children would spontaneously sing the song, usually outdoors or in the kitchen/dramatic play area on sunny days. Using the solar cooker was an enjoyable, but passive learning experience for the children. To help the children more thoroughly understand solar energy we provided a sequence of active learning experiences through which they discovered how heat or light is directed, reflected or absorbed.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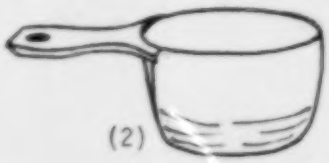
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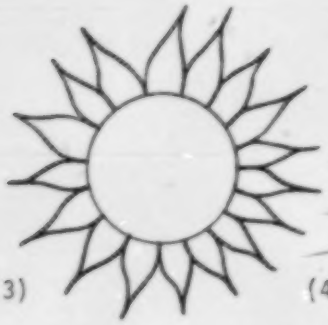
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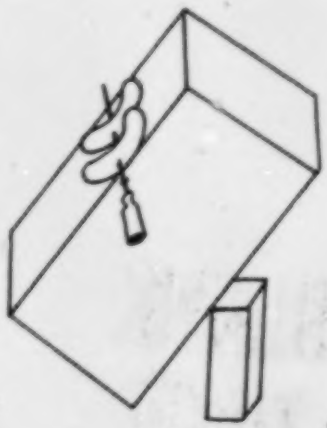
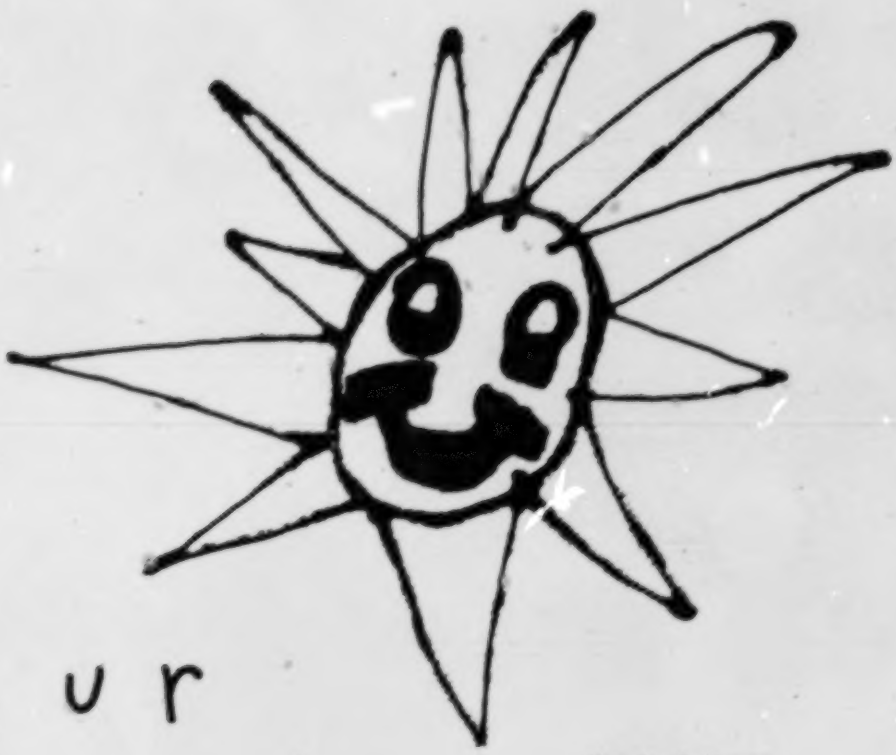


Solar Cookers



Your
friend
MIZER

By Joel Braun
Age 6

Letters From MIZER

LETTERS FROM MIZER: THE HOME-BASED PROGRAM

The MIZER letters were developed as a method of delivering energy education to families with young children. In studying this target audience, Cooperative Extension has found that many young families are not oriented toward group activities. Home-based experiences are therefore a potential alternative for diffusion of information. Linking the home-learning program with a school-based experience reinforces the concepts being studied. Such a technique is a sound, effective educational practice.

For successful programming in a home-based environment, the information needs to be accurate, current, and presented in an interesting manner. Because of the current energy dilemma with its many impacts on families, energy education was selected as an initial topic for development of a home-based educational program.

One of the goals of the program is to couple information that increased awareness with information that motivates families to adopt wise energy management practices.

The use of a series of letters sent directly to families from Extension Home Economists or teachers of early childhood programs was based on the following rationale: A series continually introduces information over a period of time and enhances the development of a positive attitude toward wise energy use; the anticipation of receiving mail heightens the interest of children; and, the letters require an older sibling or adult to read and interact with young children, thus accomplishing two purposes: increased family interaction and diffusion of information to older members of the family.

A nonsexist character was chosen as writer of the letters because of its appeal to children. The spelling of its name, MIZER, and the visualization of its appearance as a friendly sun, source of all energy, were also chosen deliberately. It is therefore important that the name and symbol appear the same consistently.

The learning activities were developed to be enjoyed by all family members: the young child, the parents, and older siblings. The activities are simple and inexpensive, but they do require time. Busy parents may find that older siblings or grandparents will enjoy doing the activities with young children.

A "Household Energy Management Checklist" and an evaluation complete the set of letters. The purpose of the checklist is to involve family members in a simple audit of their energy use within the home. The checklist takes energy use from the abstract, as presented in the letters, to reality. The promise of a prize serves as an incentive for the family to complete and return the forms. The prize offered by the authors was a 2" magnetic MIZER. Placed on the refrigerator, MIZER remains as a visible reminder to use energy wisely. The educator needs to plan and arrange for a suitable prize within the limits of resources available.

In addition to the letters, a visual is provided that can be used to announce the letters to your target audience. The visual can be enlarged for a poster; used as an ad; or duplicated for handbills to pass out at school, fairs, PTA or other meetings, or sent in a letter to the home. The purpose of this visual is to introduce and create interest in the letters.

PRESENTING

MIZER SERIES

COMING SOON - The MIZER SERIES of letters for children and their parents.
Watch for it.

games

songs

puppets

pictures

stories

HOME ECONOMICS
COOPERATIVE EXTENSION

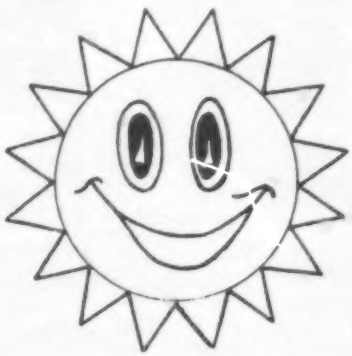
Letter 1

Dear Friends,

Hello, I'm MIZER.

Some of you parents want to help your children learn energy conserving habits. We know it's important that such behavior be started early in life. Helping children learn can be fun when MIZER, (that's me, their energy conserving friend) tells them how to use less energy. I have songs, games and rhymes and stories to make it easier for you to help your children.

In this letter is a matching game to get you started. Others in the MIZER SAYS series of letters will follow. Won't you let me help you help them save energy?



Your friend,

Mizer

MIZER

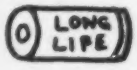
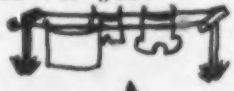
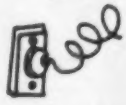
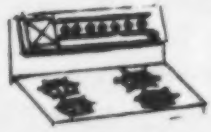
P.S. If, for any reason, your family would rather not receive my letters, please tell me so we will use our energy and paper wisely.

Remember MIZER SAYS - "Don't be Fuelish - the energy saved today may provide power for your child's future."

MIZER MATCH

Note to parent: One of the first things children need to know is that energy supplies power to do work. There are several sources of energy. This matching game will help children understand the relationship of energy and power. After playing the game, encourage your children to identify items in your home or community that use energy. Talk about the source of energy that power each item.

Directions: Draw a line from the energy source on the left to the item on the right that uses the energy to do its job.

Battery			Clothes on Line
Flame			Sailboat
Gas Pump			Water Wheel
Leg & Foot			Bicycle
Plug			Stove Top
Sun			Car
Water			Fireplace
Wind			Refrigerator
Wood			Flashlight

Prepared by Bonnie Braun, Family Resource Management Specialist, Home Economics Cooperative Extension, Oklahoma State University, 1077.

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HOME ECONOMICS
COOPERATIVE EXTENSION

Letter 2

Dear Friends,

In the last letter, I introduced myself and gave you the MIZER MATCH Game to play. This time, I'm going to give you myself! Most boys and girls like puppets and I'm a puppet. So, it seemed appropriate to include directions for making a MIZER puppet in this letter. Directions are on the bottom of this page. A pattern is on the next page.

After making me, boys and girls can put on plays to tell others about energy. In the next letter I'll send a story that can be used as a play. So, get busy and make MIZER.

Your friend,

Mizer

MIZER

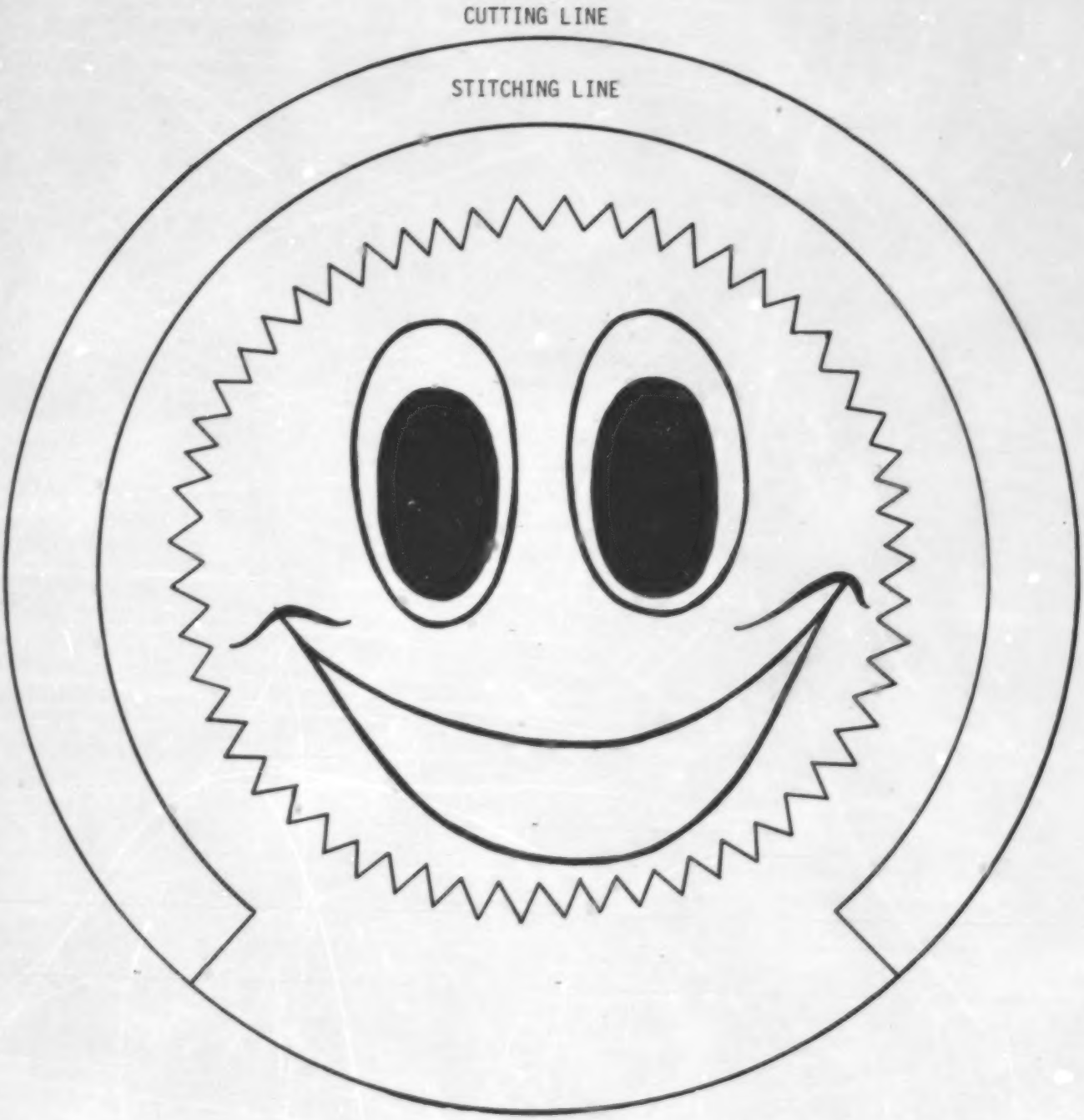
Remember MIZER SAYS - "Using Energy Wisely Saves Cents."

MIZER PUPPET

Materials Needed: Yellow fabric or paper for the main part of MIZER. Black rick-rack or color features if using paper for the trim. Black or white fabric or the eyes and mouth. (Can use buttons if sewn on securely.)

Directions: Cut out material or paper using pattern. Cut 2 pieces. On one, sew rick-rack or color. Attach eyes and mouth. With right sides together, stitch, reinforcing at the openings. Tape or glue if using paper. Clip curves, turn, press.

MIZER PUPPET



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HOME ECONOMICS
COOPERATIVE EXTENSION

Letter 3

Dear Friends,

In the last letter I gave you directions for making a MIZER puppet. Did you get yours made? This time I've included a short play for you to put on, with help from Mom, Dad, big sister, brother or a friend who can read.

After giving this play, you might try to write one of your own. Dictate the story to someone who can write or record it on a tape recorder. Then get your family and friends together to hear your story.

Bye now. I'll be back in the next letter with a list of energy conserving tips.

Your friend,

Mizer

MIZER

Remember MIZER SAYS - "Only Goonies Guzzle Gas."

FROM LOTS TO LESS

Once upon a long time ago in the land of "Lots" families hurried to lots of places--schools, churches, stores, businesses. They drove lots of big cars which used lots of gasoline. In their houses and stores and schools and places of business were lots of energy-using things like lights, heaters, air conditioners, stoves, refrigerators. Then one day there wasn't enough gasoline for the cars. The electricity went off so the lights weren't on, and the refrigerator couldn't run. There wasn't any gas to heat the houses and schools and other places. The people in Lots were very mad. We want our gasoline, we want our electricity, we want our gas. They demanded. Soon the people got their wants--they got the gasoline, gas and electricity, but they had to pay lots of money. We don't want to pay big bills the people said. But still prices went higher.

People weren't happy. It wasn't easy for them to get lots of money to pay for lots of energy.

One day a friend came to the land. He said, "I'm MIZER. I'm here to help you save energy so you won't be so sad. If you use less gasoline, electricity and gas you won't have to pay lots more."

"Oh, how can we do that, MIZER?" the families said.

"It won't be easy," MIZER said. "All of you will have to help. We must work together. But if you do as MIZER says, you can save energy."

"We will, we will!" the families said. And they did. Now the land where these families live has changed its name to LESS.

(If you want to know how they did it, read the list of energy saving tips in the next letter. Then try to do as MIZER SAYS.)

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HOME ECONOMICS
COOPERATIVE EXTENSION

Letter 4

Dear Friends,

Did you make a puppet and put on the play? Have you tried to write another play? I hope so.

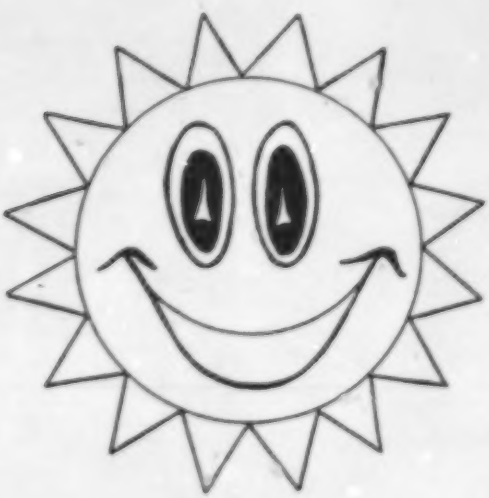
Last time I promised a list of energy conserving tips which is included in this letter. Did you realize that space heating and cooling, water heating and travel by car are responsible for most of the energy a family uses? It's in those areas that we need to save the most energy.

I've also included several things for you to do in this letter. Next time, I will send something else. Until then --

Your friend,

Mizer

MIZER



Remember MIZER SAYS - "Keeping Houses Warm is an 'Open and Shut' Case."

FAMILY FUN

Note to parent: Through games and songs you can reinforce your child's understanding of how dependent families are on energy.

COUNTING GAME: Count the number of appliances in your house (kitchen, or other room) that use energy.

SONG: "This is a Way We Go to Town"

This is a way we go to town, go to town, go to town.

This is a way we go to town, _____, _____, _____.

Fill in blanks with: riding in a car

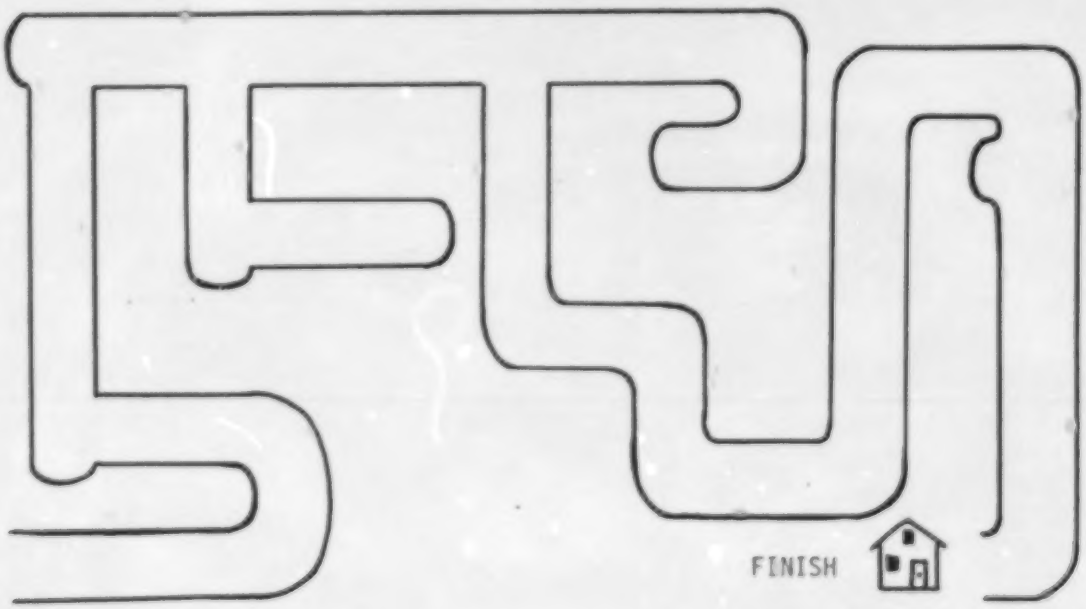
pedaling a bike

flying in a plane

jogging up and down

Encourage the child to think of other verses.

MIZER MAZE: Help MIZER get through the maze to your house. Use a pencil and draw a path for MIZER to follow.



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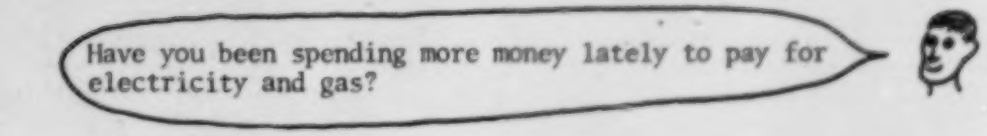
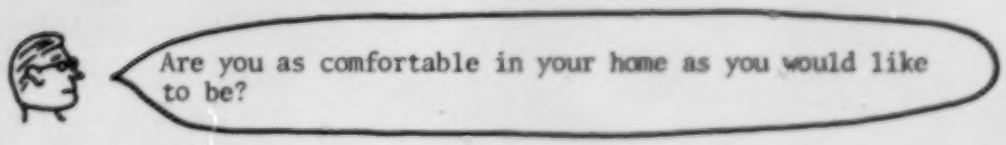
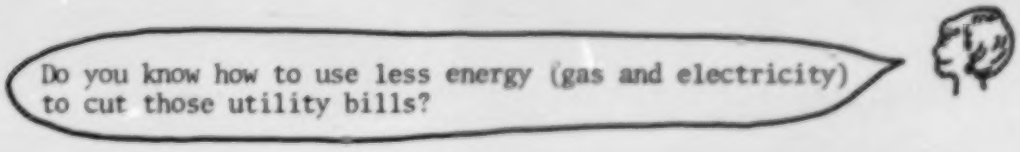
HOME REMEDIES FOR ENERGY ILLS







Dr. Bill Cutter has prescriptions to help solve your energy ills.

DR. BILL CUTTER'S
PRESCRIPTIONS FOR HOME HEATING AND COMFORT

Keep house temperature at 65° - 68°F. Reduce to 55° - 60° when you go to bed.

Keep heat outlets clean, replace furnace filters, oil furnace fan and motor as needed.

Wear layers of clothes to keep warmer.

Caulk and weather strip around windows, doors, attic and crawl space to stop air leaks. Tape cracks or holes in window panes. Add plastic storm windows. Cover floors with layers of newspapers under rugs.

On sunny days open blinds and draperies. Keep closed when sun is not shining.

Put rolled newspapers, heavy towels, or rugs at the base of doors and windows to stop drafts.

PRESCRIPTIONS FOR WATER HEATING

Use less hot water. Turn off faucets quickly. Insulate hot water pipes.

Fix dripping faucets. Avoid running.

PRESCRIPTIONS FOR LIGHTING

Turn off lights not in use.

Use low wattage light bulbs except for reading and close work.

Keep light fixtures clean.

PRESCRIPTIONS FOR COOKING AND COOLING

Reduce the number of refrigerator door openings by removing several items at once.

Replace worn door seals.

Use pans with straight sides, flat bottoms, tight fitting lids.

Turn off oven surface units or burners as soon as food is cooked.

Use pressure cookers to cook foods in less time.

Doctor's orders ---

Follow these prescriptions to cut your energy use.

HOME ECONOMICS
COOPERATIVE EXTENSION

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HOME ECONOMICS
COOPERATIVE EXTENSION

Letter 5

Dear Friends,

In one of the earlier letters, I introduced you to sources of energy. (See letter #1, MIZER MATCH game.) We all need lots of energy to keep us going. You get energy from the food you eat. Energy can be the power to make things move, to heat your room, or light your house. In this letter, I'm including MIZER DOMINOES. Get someone to read the rules and play with you.

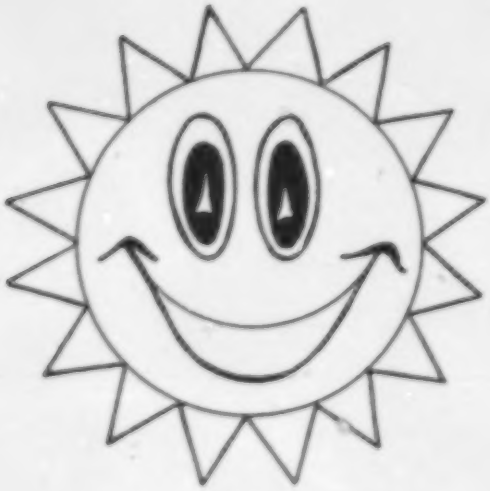
Be watching for the next letter with something special.

Until next time --

Your friend,

Mizer

MIZER



Remember MIZER SAYS - "Pedal Power Pushes People Forward."

MIZER DOMINOES

Note to parents: The pictures on the cards represent sources of energy to do work, to provide heat or light, or to move things. The game was designed to develop matching skills in your child and to increase his understanding of sources of energy.

Directions: To make more durable, glue onto cardboard, cover with transparent adhesive plastic and cut apart. Store in an envelope or small box.

1. Cut apart the 2 pages of picture units on the heavy lines.
2. Turn upside down and scramble.
3. Each player selects 5 units from the pile.
4. Each player looks at his own units, but does not let the other players see what he has.
5. One player with a double starts the game by placing the double in the center of the table.
6. The game continues with players taking turns. A match of the picture is needed to play. If the player does not have a match, he draws a unit from the pile until he gets a match.
7. The first one to use all of his units wins.

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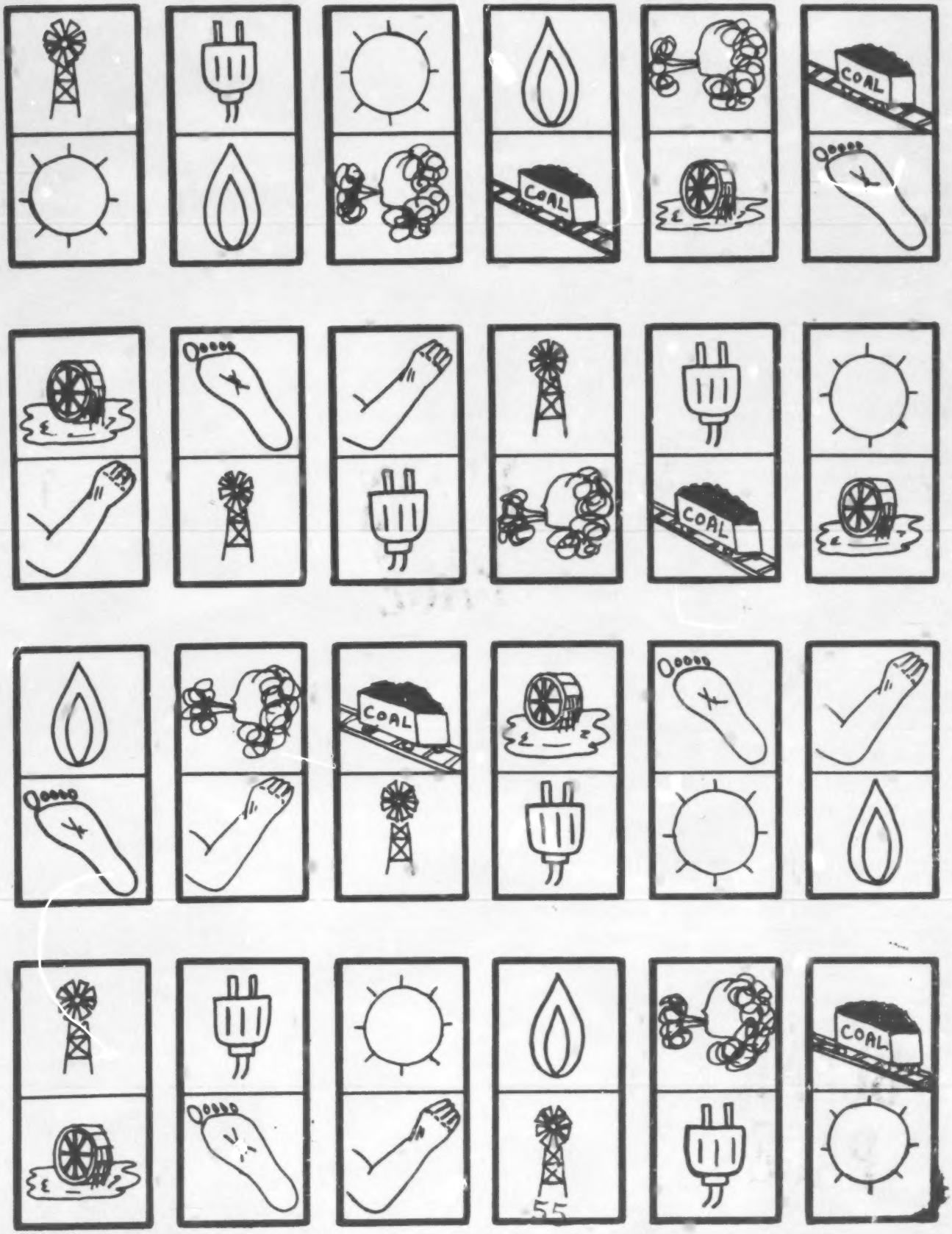
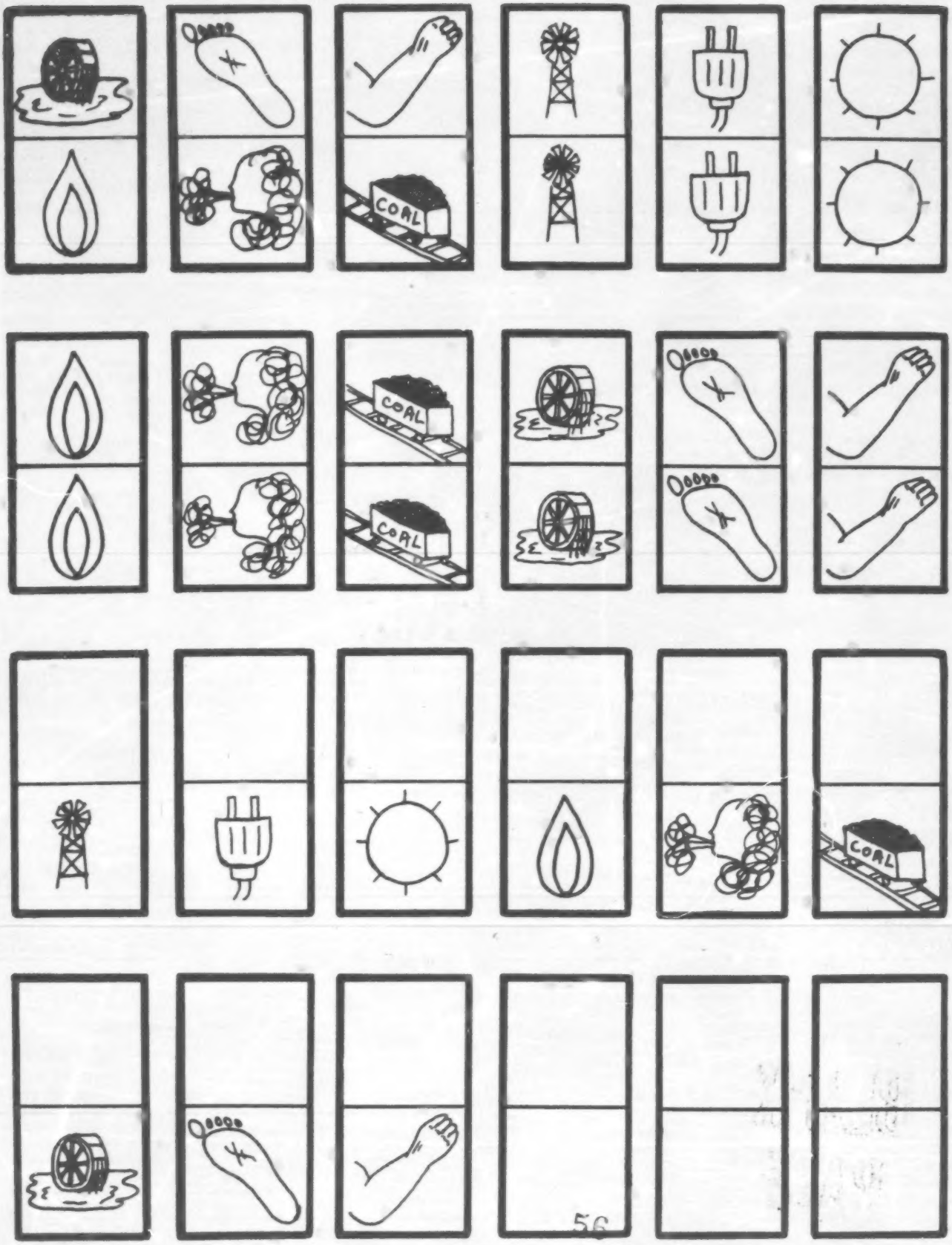
MIZER DOMINOES



MIZER DOMINOES



HOME ECONOMICS
COOPERATIVE EXTENSION

Letter 6

Dear Friends,

Everyone seems to be talking about the rising costs of energy bills. Some talk about the price of gasoline. Others about utility bills for gas and electricity. Some say the only way to slow down the rising costs is to save energy. Others say using less gas or electricity by changing the way we live will help. There's talk of using "Pedal Power" or "People Power" instead of gasoline or electricity.

On TV there are adds for insulation and storm windows. Talk. Talk. Talk. Everyone is talking but is anybody doing anything to save energy?

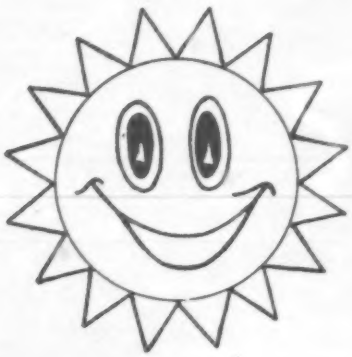
I am. I'm MIZER your energy saving friend. Remember, I'm here to help boys and girls, moms and dads, use less energy. I've had fun coming into your home and this is my last letter. Won't you each do your part to save energy?

In the last letter I promised to send you something special. On the next pages is a MIZER SAYS game. So get Mom, Dad, Sister, Brother or a friend or neighbor, join together, and play along with MIZER.

Your friend,

Mizer

MIZER



Remember MIZER SAYS - "Don't Let Drips Drown You."

Note to parents: This game has been designed to show children ways they can save energy in your home. Some of these suggestions you have been saying for a long time. But it may be easier to get your child's cooperation if MIZER says what to do.

To make more durable, glue onto cardboard, cover with transparent adhesive plastic and cut apart.

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MIZER SAYS

DIRECTIONS:

1. Cut apart the numbered squares. Put in a dish or other container.
2. Cut apart the shapes and let each person choose his shape. (4 can play.)
3. Draw a number to see which person starts the game. If there is a tie (2) with the same number) draw again. The person with the highest number goes first. The rest follow in a circle.
4. First person draws a number and moves forward the same number of spaces. Each player follows. First person at MIZER'S house wins. Whenever a person lands on a square with words, do as the words say--go forward or backward.
5. When the game is over, talk about which of these energy saving habits your family does and which it could do.

1	1	1	2	2	2	3	3	3	3
1	1	1	2	2	2	3	3	3	3
1	1	2	2	2	2	3	3	3	3
1	1	2	2	2	3	○	□	△	◇
1	1	1	1						

HOME ECONOMICS
COOPERATIVE EXTENSION

FINISH

Shut shade when sun bright in summer

Forward 2 ↑

MIZER

Hung clothes on line

← Forward 2

Walked to park & back

Forward 2 ↑

Used elevator instead of stairs

Back 1 ↓

Left door open

Back 4 ↑

START

Left TV on

← Back 2

SAYS

Wore sweater to keep warm

Forward 1 ↓

Left bedroom light on

Back 2 ↓

Rode bike to Grandma's

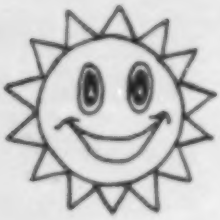
Forward 3 ↓

Left hot water faucet dripping

Back 2

Closed Refrigerator door quickly

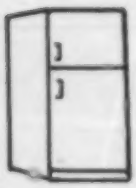
↖ Forward 2



FAMILY NAME _____ _____

HOUSEHOLD ENERGY MANAGEMENT CHECKLIST

Directions: Get the family together. Answer the questions by checking the appropriate blank. Return to your child's teacher or your county Extension Home Economist.



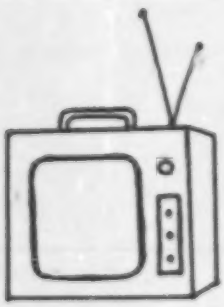
YES	NO	KITCHEN
____	____	Is the refrigerator door being opened only as often as necessary?
____	____	Is the lowest possible temperature being used to cook foods?

BATHROOM

____	____	Have you checked to make sure hot water faucets are not leaking?
____	____	Is the water heater for the bathroom set no higher than 110°F? (Or 140°F if the same water heater supplies both kitchen and bathroom.)

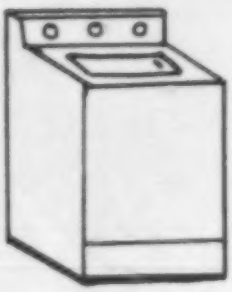
ALL ROOMS

____	____	Are lights turned off when not being used--
		... in the kitchen? ... in the bathroom? ... in the family room? ... in the hallways? ... in the bedrooms?
____	____	Are lower wattage bulbs being used for general room lighting?
____	____	Are high wattages being used only where people read or do close work?

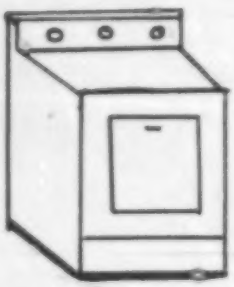


____	____	Is the TV turned off when no one is watching it?
____	____	Are stereos and radios turned off when no one is listening to them?

HOME ECONOMICS
COOPERATIVE EXTENSION

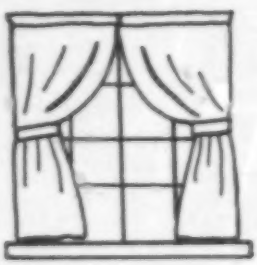


YES	NO	LAUNDRY
____	____	Are clothes being washed only when the machine is full?
____	____	Whenever possible, are clothes washed in warm water and rinsed in cold water?
____	____	Are very dirty clothes soaked in detergent before washing to shorten the wash time?
____	____	Is the dryer being run only just long enough to dry the clothes?
____	____	Is the dryer's lint screen cleaned after each load?



IN WINTER

____	____	Do you keep your room temperature at 60°F at night; no higher than 68°F during the day?



____	____	Are curtains open during the day to allow the sunshine to help warm and light rooms?
____	____	Are curtains closed at night to help keep the cold out?
____	____	Are unused rooms closed off, and where possible, heat turned down?

TRANSPORTATION

____	____	Is the family car used only when necessary?
____	____	Do people in your family walk or ride a bike to save gasoline?
____	____	Is the car properly tuned and serviced regularly?

Prepared by Bonnie Braun, Family Resource Management Specialist, Home Economics Cooperative Extension, Oklahoma State University, 1177.

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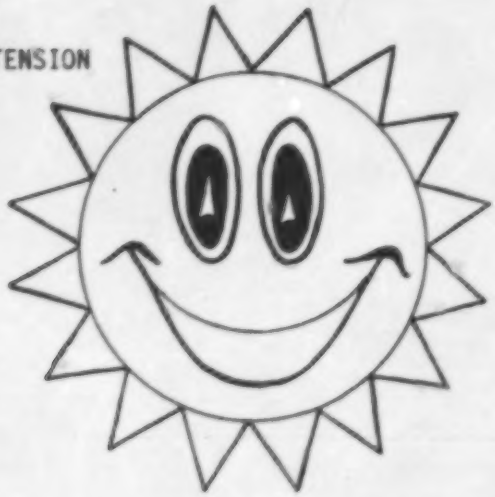
HOME ECONOMICS
COOPERATIVE EXTENSION



MIZER Series
Evaluation

Dear Friend,

For the past several weeks your family has been receiving letters from MIZER. To help us improve those letters, please take a few minutes to fill out this evaluation form. Return to your child's teacher or your county Extension Home Economist. Thank you.

	YES	NO
1) Did your family enjoy the activities?	_____	_____

Check the people who participated in MIZER activities:

_____ Mother _____ Father _____ Grandparent

_____ Friend _____ Neighbor _____ Other (who) _____

_____ Son(s) age(s) _____ _____ Daughter(s) age(s) _____

2) Would you like to receive more MIZER leters in the future?	_____	_____

List names and addresses of other families you think would like to receive the SERIES.

_____

_____

_____

_____

3) Would you like a similar series for your older children?	_____	_____

If yes, what are their ages? _____

YES NO

4) Would you like a similar series but on different topics (such as money management)? _____ _____

If yes, what topics do you suggest?

_____

_____

_____

5) Has your family become more aware of energy use because of the MIZER SERIES? _____ _____

6) Is your family using energy more carefully as a result of the MIZER SERIES? _____ _____

If so, briefly state what changes have occurred in your energy use.

_____

_____

What comments or suggestions do you have?

_____

_____

_____

_____

_____

_____

Bye now and thanks,

Mizer

MIZER

Remember MIZER SAYS - "Use Energy Wisely."

Prepared by Bonnie Braun, Family Resource Management Specialist, Home Economics Cooperative Extension, Oklahoma State University, 278.

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COMMENTS FROM PARENTS

"I'M PARTICULARLY PLEASED BY THE ACCURACY IN SELECTING MATERIAL THAT IS FUN AND EASY TO UNDERSTAND FOR MY 4 YEAR OLD SON."

"OUR DAUGHTER CONSTANTLY REMINDS US TO BE MIZER'S, TURN OUT LIGHTS, ETC. WE HAVE ENJOYED THIS UNIT--IT HAS BEEN INTERESTING TO SEE HOW WE CAN SAVE ENERGY."

"THE CHILDREN PROBABLY LIKE THE PUZZLES BEST--SOMETHING THE WHOLE FAMILY CAN DO TOGETHER."

"I APPRECIATE WHAT YOU ARE DOING."

"KATHERINE HAS BECOME VERY ENERGY CONSCIOUS AND INTERESTED IN WAYS TO SAVE ENERGY." "MAYBE A SERIES SHOWING HOW DAMAGING TO THE ENVIRONMENT WASTING ENERGY IS I.E., EXHAUST FUMES, ETC."

"THE LETTERS MADE THE CHILDREN MORE AWARE OF CONSERVING ENERGY AS WELL AS US. WE STILL PLAN TO MAKE THE PUPPETS. THE GAMES WERE FUN AND THE CHILDREN ENJOYED THEM."

"THE LETTERS WERE ENJOYABLE AS WELL AS INFORMATIVE. HEATHER ENJOYED THE LETTERS VERY MUCH AND DIANA (A 9 YEAR OLD-SISTER) ENJOYED THEM EVEN MORE."

Prepared by Bonnie Braun, Family Resource Management Specialist and Elaine Wilson, Parenting Specialist, Home Economics Cooperative Extension, Oklahoma State University, 97a.

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ENERGY EDUCATION: THE MIZER SERIES

An Interdisciplinary and Interagency Project

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